Austria	[illegible]	Indonesia	[illegible]	Oman	[illegible]
Bahrain	[illegible]	Iran	[illegible]	Philippines	[illegible]
Belgium	[illegible]	Israel	[illegible]	Portugal	[illegible]
Cyprus	[illegible]	Italy	[illegible]	Qatar	[illegible]
Denmark	[illegible]	Jordan	[illegible]	S.Arabia	[illegible]
Egypt	[illegible]	Kuwait	[illegible]	Singapore	[illegible]
Finland	Fmk7.00	Lebanon	[illegible]	Spain	Pta165
France	FFr7.50	Lux	LFr50	Sweden	SKr10
Germany	DM2.50	Malaysia	Rin4.25	Switz	SFr2.40
Greece	Dr150	Morocco	Dh8.00	Thailand	Bt50
Hong Kong	HK$12	Neth	Fl2.55	Tunisia	Din0.800
Iceland	Ikr125	Nigeria	Naira10	Turkey	L1200
India	Rup15	Norway	Nkr10.00	UAE	Dh7.50

EUROPE'S BUSINESS NEWSPAPER

FINANCIAL TIMES

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GERMANY
Wanderlust and model trains
Page 19

World News

UK distances itself from South Africa communiqué

The sharp division between Britain and the rest of the Commonwealth over South Africa was underlined last night when Mrs Margaret Thatcher, Prime Minister, distanced herself from key sections in the official communique. She issued a statement elaborating on Britain's differences with the rest of the Commonwealth. Page 20; Communiqué, Page 2

Electoral boost

West Germany's far right Republican Party recorded its strongest ever electoral advance in communal elections in the southern state of Baden-Württemberg.

Honduran crash

Survivors of a Honduran air crash that killed 132 people said they were given no warning before the Boeing 727 smashed into hills outside Tegucigalpa. Page 4

E German travel

East Germany's Communist rulers pledged swift action to ease travel to the West but the country's crisis mounted with more marches for democracy by tens of thousands of people. Rallying point, Page 2

Lebanese talks

Christian deputies said they had accepted a compromise peace plan for Lebanon based on a revised Arab League plan, despite fierce opposition from Christian army chief General Michel Aoun. Page 3

Turks accuse Syria

Turkey said wo Syrian MiG-21 fighters shot down a civilian survey aircraft, killing the five people on board, and demanded an explanation. Water row, Page 3

Antarctic protection

The 39 signatories to the Antarctic Treaty have agreed, after an acrimonious meeting, to hold a special round of negotiations next year to set up a "comprehensive protection system" for the continent's environment. Page 4

Arafat in Cairo

Palestine Liberation Organisation chairman Yassir Arafat arrived in Cairo for talks with Egyptian President Hosni Mubarak on obstacles to Middle East peace efforts. Baker on Israel, Page 4

Hungary nomination

Hungary's main opposition group, the Hungarian Democratic Forum, announced its candidate for president. The group picked historian Lajos Fur to contest the multi-party elections. Page 2

Zimbabwe arrests

The Zimbabwean Government carried out a wave of arrests in advance of four parliamentary by-elections which take place this week. Page 3

Spain nuclear fire

Spain's Industry Ministry was waiting for a report by the Nuclear Security Council before deciding whether to close an ageing nuclear plant which caught fire last week. Page 3

Greek bomber dies

A Greek air force communications expert was killed while planting a bomb at a theatre on the Aegean island of Lesvos where the conservative leader, Mr Constantine Mitsotakis, was scheduled to hold an election rally later. Page 2

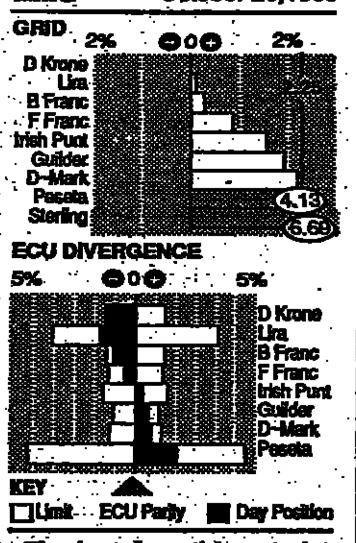
Business Summary

Brady calls for closer regulation of markets

US TREASURY Secretary Nicholas Brady said federal regulation of financial and securities markets needed to be co-ordinated more closely, in his first public comments since the Wall Street slump. Page 20

EUROPEAN MONETARY SYSTEM: A strong D-Mark put pressure on the Danish krone and Italian lira in the EMS last week. Both required support and struggled to stay within their cross-rate limits against the West German currency. The French franc was also within the group of weaker EMS currencies, but Paris stated its strong opposition to any devaluation of the franc against the D-Mark.

EMS October 20,1989



The chart shows the constraints on EMS exchange rates. The upper grid, based on the system's weakest currency, defines the cross-rates from which only the lira and peseta may move by more than 2¼ per cent. The lower chart gives currencies' divergence from the central rate against the European Currency Unit (Ecu), itself derived from a basket of European currencies.

UK GOVERNMENT commitment to using high interest rates to fight inflation and support a week sterling will be tested to the full tomorrow when the September trade figures are released. Page 20

EURO DISNEYLAND, European leisure enterprise, will hold a ballot to decide allocations in the heavily oversubscribed offer for its 10.7m shares to favour small shareholders. Page 26

SWEDEN'S troubled Saab-Scania company is seeking agreement with a major European car maker after the collapse of talks with Ford of the US on co-operation. Page 23

ORBITEL mobile communications, a joint UK venture company set up by the Racal and Plessey electronics groups, entered the new pocket phone market with a range of products aimed at all four of the telepoint licensees. Page 14

BANQUE Nationale de Paris strengthened Franco-Italian banking ties by the acquisition of a 2 per cent stake in Credito Romagnolo, Italian bank. Page 23

EUROPEAN Commission and the six members of the European Free Trade Association (Efta) identified key questions for possible real negotiation between Western Europe's two trade blocs next year. Page 6

BRADFORD University in the UK and UNIRAS, Danish computer graphics company have won a $790,000 contract to help clean up pollution in Shanghai harbour. Page 14

SONATRACH, Algeria's state oil and gas monopoly is negotiating a contract — worth about $600m — with European and US companies to modernise facilities at Arzew, oil and gas export base. Page 6

French spellbound by prime-time language test at the Sorbonne

By Ian Davidson in Paris

MORE than 1,200 French speakers this weekend put their knowledge of the language to the test at the Sorbonne, Paris's ancient university, in the semi-finals of a competition which has got entirely out of hand.

In 1984 Mr Bernard Pivot, the impish presenter of Apostrophes, French television's top books programme, had the bright idea of launching a national spelling competition. It took off like wildfire, to a point where, five years later, *Les Championnats d'Orthographe* has drawn more than 200,000 competitors, a 60 per cent increase on 1988.

The vast majority are from France, but the championship has also attracted competitors from 45 countries from around the world, from francophone Zaire to Australia.

Saturday night saw the semi-final of this extraordinary competition, conducted live world-wide, and broadcast on prime time television from the Sorbonne.

Of the 8,500 semi-finalists, about 1,200 crowded into the Grand Amphitheatre of the university to test their skills in a dictation read by Mr Pivot.

In some ways it was just a variant of any old television game show, with a leggy announcer to give sex-appeal, and some pop stars to fill in the gaps. And yet the institution of *la dictée* seems to epitomise some quintessential aspects of French culture: delight in an infinitely complicated corpus of grammatical rules and exceptions, and a belief that since the rules are absolute, knowledge can be tested and marked.

The dictation exercise also resonates with echoes of a century-old tradition in the French primary school system.

In past competitions, Mr Pivot paid tribute to this tradition by reading the dictation wearing the kind of blue-grey smock once characteristic of the primary-school *instituteur*. At last Saturday night's semi-final, however, he wore an ordinary jacket: the championship had graduated from the school-room to the television screen.

For the competitors, young and old, it was obviously a delightful occasion. To sort out the best from the second best, the text had to be fairly difficult; in fact it could be said to have parted comany with real life, because it contained many words which barely exist outside a dictionary.

Nevertheless, as Mr Pivot read, he drew waves of groans and laughter from 1,200 appreciative experts. They were having fun.

Continued on Page 20

New Russian opposition group poses challenge to Gorbachev

By John Parker in Yaroslavl

A NEW opposition movement mixing old-fashioned Russian nationalism with calls for a multi-party system was formed yesterday in a fresh challenge to President Mikhail Gorbachev of the Soviet Union.

The Popular Front of the Russian Federation was created amid much cheering and waving of Czarist flags at a meeting at Yaroslavl, a town 150 miles north of Moscow. Opponents of the Soviet regime had come to Yaroslavl from all over the Russian republic.

If the fragile alliance that emerged yesterday between political reformers and nationalists holds it could create fresh embarassment for Mr Gorbachev by campaigning effectively in forthcoming local elections.

The Soviet leader is already under pressure because of widespread discontent over food shortages and ethnic ferment in many other republics.

The setting up of a Popular Front in the Soviet Union's largest republic – clearly modelled on movements of the same name which combine ethnic and political demands in places ranging from the Baltic states to Central Asia – portends fresh turmoil both within and outside the Communist Party. Opinion polls suggest that the ruling party's prestige is at an all-time low.

If the Front can successfully promote and secure the election of government officials, it will also fuel assertions that an elementary multi-party system is in effective operation already, despite Mr Gorbachev's claim that this is "nonsense" for the Soviet Union.

The 99 delegates, representing grass-roots nationalist and anti-establishment groups that have sprung up all over Russia in recent months, overcame yawning ideological differences to settle on a constitution and a reformist political plan.

The Popular Front's demands include multi-party democracy, the removal from the Soviet constitution of references to the Communist Party's "leading role" in society, an independent judiciary and the delegation of power to elected local assemblies.

Participants ranged from representatives of the Russian Orthodox Church to leaders of the Siberian coal miners who went on strike this summer, and a movement aligned with the Democratic Union, an ultra-liberal intellectual group.

While the programme that was finally adopted reflected liberal ideas, the meetings saw intense debate over how far the new movement should reflect nostalgic Russian patriotism.

The Orthodox Church proposed setting up a system of party-less democracy in which each street or village would elect its own officials.

However, a proposal that the Popular Front should work "against great Russian chauvinism and for equal rights for all nations," was rejected in favour of the more neutral "against all chauvinist and nationalist propaganda."

The conference voted for ending all subsidies paid by the Russian Republic to the rest of the Soviet Union – and in a new hint that the economic crisis is prompting discontent over Mr Gorbachev's economic reform – it rejected the idea of full cost-accounting for enterprises in favour of a proposal that would allow firms to remain within a planned economy.

The meeting failed to unite everybody. A representative of the Moscow-based Patriotic Popular Front said that they would hold a congress soon and would invite members of "Pamyat," an anti-Semitic Russian nationalist group, and members of the "United Front of Russian Workers," an anti-reformist organisation.

Soviets ask for Western help on gas development

By Karen Fossli in Oslo

THE Soviet Union has asked a group of Western companies to undertake feasibility studies for the development of the world's largest offshore natural gas field.

Estimates of the field's size are in the range of between 3 trillion and 4 trillion cubic metres, or five or six times larger than the whole of Britain's North Sea gas reserves.

The Shtokmanovskaya discovery, in the Barents Sea more than 250 miles north-east of the Arctic port of Murmansk, was announced by Mr Ostap Sheremeta, a senior official in the Soviet Ministry of Oil and Gas, during a visit to Norway in August. Three test wells have been drilled in the area.

The Soviet Union has made three big gas discoveries in the Barents and Kara Seas which oil industry experts say will require Western technology and expertise to develop.

This was confirmed at a recent trade meeting between Norway and the Soviet Union in Moscow when the Soviets expressed interest in Norwegian participation in offshore gas field developments in the Barents Sea. The group of companies involved in the feasibil-

Continued on Page 20

Nato due to launch arms study aimed at achieving consensus

By David White, Defence Correspondent, in London

A STUDY on possible changes in Nato's line-up of nuclear weapons in Europe as a result of an agreement on conventional arms reduction is due to be set in train by allied defence ministers this week.

The study, to be carried out by the High Level Group of senior officials which reports to the ministerial Nuclear Planning Group, could have an important bearing on prospects for averting another Nato confrontation over the future of short-range nuclear missiles.

At its summit in May, Nato agreed to postpone until 1992 a decision on whether to deploy a follow-on to the current Lance missile in the face of strong opposition to such a move, particularly in West Germany.

Under the compromise, Bonn accepted in principle the need for Nato to keep land-based nuclear weapons, as well as other kinds, "in the present circumstances and as far as can be foreseen."

The Nuclear Planning Group meeting in southern Portugal tomorrow and Wednesday will seek to avoid a resurgence of the issue, especially in view of the West German elections late next year. It is expected to concentrate on changed perspectives in East-West relations, including the START talks on reducing US and Soviet long-range nuclear weapons, and progress in the Conventional Armed Forces in Europe (CFE) negotiations in Vienna.

The task of the High Level Group will be to investigate the implications of a CFE treaty for the alliance's

Continued on Page 20

Olivetti subject of CoCom inquiry

By John Wyles in Rome

THE ITALIAN Government, under pressure from the US over the sale of sensitive technology to the Soviet Union, has assembled a report saying that Olivetti – the Italian electronics company – may have violated Western restrictions on such exports.

The Government's preliminary conclusions follow a quietly determined US campaign to put Olivetti in the dock for breaching guidelines drawn up by the 17-nation Co-ordinating Committee on Multilateral Export Controls (CoCom).

President George Bush expressed US concern at a recent meeting in Washington with Mr Francesco Cossiga, the Italian President. And Mr Reginald Bartholomew, the Under-Secretary of State for Security Assistance, is to maintain the pressure by visiting Rome this week.

At a meeting with Mr Gianni De Michelis, the Italian Foreign Minister, he should learn of the results of the Government's investigation into Olivetti's commercial exchanges with Moscow.

Rome is understood to have concluded that Olivetti has not exported any equipment which breaches CoCom guidelines but that work carried out by the company's technicians on the ground in the Soviet Union could well have served to "upgrade" Olivetti hardware and software to a capacity which violates CoCom norms.

This is denied by the company, which said more than 50 Olivetti technicians had been involved in installing equipment in the Soviet Union over the past three to four years "but none of them has upgraded any of the equipment under investigation."

The company said it was "quite normal and open" for Olivetti technicians to install the company's equipment.

US and European press reports have suggested the Bush Administration believes that Moscow may have used Olivetti technology in developing a vertical take-off supersonic fighter, the Yak 41.

The Washington Post recently quoted an Administration source as saying that the Olivetti affair could prove to be as serious as the Toshiba case.

This ended in Congress restricting US Government purchases of Toshiba equipment for three years after the Japanese company had been found to have exported technology which helped Moscow to develop extremely quiet submarine propellers.

Mr De Michelis has apparently decided to take a neutral stance with the US, seeking neither to defend Olivetti nor to prosecute the company.

British Airways admits failure of UAL buy-out is a setback

By Paul Betts, Aerospace Correspondent, in London

THE COLLAPSE of the United Airlines $6.8bn buy-out could have serious longer-term implications for British Airways.

Until last week BA saw a financial link with the second-largest US carrier as the main component of its long-term global growth strategy.

BA appears in the short term to have come out of the UAL financial fiasco relatively unscathed and with a stronger balance sheet because of its recent £320m ($508m) rights issue.

However, senior company officials have acknowledged in the past few days that the collapse of the deal is a setback for the UK airline.

BA and Sir Colin Marshall, chief executive, took a gamble last month when the airline decided to participate in the UAL buy-out by agreeing to invest $750m for a 15 per cent stake in the US carrier.

The move was designed to cement BA's existing marketing links with UAL and safeguard the UK carrier's interests against a hostile takeover bid launched by Mr Marvin Davis, the Los Angeles investor, on UAL.

However, BA's participation in the buy-out was seen by the airline industry as having broader implications and constituting a big step towards an even closer association between the two airlines, eventually leading to a possible merger.

The events of the last week, however, have shaken the relationship between the two airlines and have raised questions over future co-operation between BA and UAL.

Tensions appear to have emerged between BA and UAL management in recent days over the US party's handling of the buy-out and its financing.

These tensions risk further undermining the relationship and their two-year marketing pact, although BA has continued to insist that the events of the past few days would not affect their marketing arrangements.

City of London airline analysts, who had supported the UAL buy-out plan despite the high cost for BA, continue to regard a link with a US carrier as essential in the longer term for the UK flag carrier to consolidate and expand its position in the US market, already accounting for 39 per cent of all its scheduled traffic.

The failure of the UAL buy-out has also raised a question mark over the recent strategy of several European airlines such as SAS of Sweden, Swissair, and KLM, the Dutch airline, which have all recently bought stakes in US airlines.

Other European airlines such as Lufthansa and Air France have preferred to adopt a more cautious approach to airline stake building and have opted for more conventional marketing agreements.

BA announced on Friday it would not participate in any UAL deal "in the foreseeable future" and had decided to step back to see how the situation evolves in the US.

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UAL and the banks, Page 22;
New York bonds, Page 24

FINANCIAL TIMES

CareerChoice

The Financial Times 64-page survey "Career Choice", to be published on November 1, will make indispensable reading for both parents and students. It will:

- Draw on the FT's reservoir of specialist knowledge about the world of work to examine prospects in more than 50 sectors – from banking and zoology to social work and architecture.
- Tackle issues which all too often are kept under wraps. Do some employers rely entirely on the "old boy network"? Are women still being discriminated against in certain areas of work?

Apart from appearing with every copy of the FT on November 1, a total of 150,000 copies will be distributed to every UK university and polytechnic, as well as to six universities in continental Europe.

The survey will also include a four-page guide to the FT, describing the newspaper's editorial philosophy, the breadth of its news and feature coverage and how to find your way around its pages.

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THE MONDAY INTERVIEW

As the eighth generation of a wealthy Dutch dynasty, Mr Paul Fentener van Vlissingen and his family are pondering the difficult question that faces such dynasties: should the multi-million-pound family business go public? Page 46

Hungarian party outlines policies for reconstruction

By Judy Dempsey in Budapest

THE Democratic Forum (MDF), the Hungarian opposition group which is widely expected to be in government next year, has settled on a political programme calling for economic reconstruction through privatisation and foreign investment and also for a loosening of ties with the Warsaw Pact.

The programme, agreed after a three-day convention, was described as reflecting Hungary's liberal, Christian Democratic and rural traditions.

The Forum, tipped to gain a majority of seats in next year's free parliamentary elections, outlined its policies amid growing controversy as to how and when Hungary's next President will be chosen.

A recent agreement between the ruling Communists – who recently proclaimed themselves a Western-style Socialist party – and several opposition groups, including the MDF, provides for the head of state to be chosen by direct elections next month.

But the small Association of Free Democrats, which fears that the short campaign will give the ruling party an unfair advantage, has already collected 250,000 signatures on a call for the president to be chosen at a later date, to be decided on by referendum.

The Free Democrats would also prefer the new head of state to be elected by the new parliament, rather than by universal suffrage.

At the weekend, despite earlier suggestions that the MDF might support the presidential bid of Mr Imre Pozsgay, the most prominent reformer in the ruling party, the convention overwhelmingly elected Mr Lajos Fur, a little-known 58-year-old historian, as its presidential candidate.

MDF officials yesterday said, that given the anti-communist mood in the country, it was wise for the party to distance itself from Mr Pozsgay.

As expected, the convention also elected Mr Jozsef Antall, another historian, as its leader.

Mr Antall, a politician finely attuned to Hungary's traditions of compromise and pragmatism, declined to say which parties the MDF was prepared to work with in coalition.

But he said the MDF would "pay particular attention" to the question of which party would in future control the defence, interior and transport ministries.

He ruled out any withdrawal from the Warsaw Pact.

The MDF, which has over 20,000 members and 327 branches, agreed on:

- Reconstruction of the economy, which would entail attracting foreign capital, rebuilding the infrastructure, a privatisation policy, subject to close monitoring, and the re-introduction of private ownership in agriculture.
- Long-term goal of neutrality in foreign policy. In the short-term, the MDF wants Hungary's role in the Warsaw Pact to be similar to that of France's in Nato – not part of the command structure.
- On ethnic questions, the MDF – which is sensitive to allegations of anti-Semitism – called for full protection both for minorities within Hungary and for Hungarians in neighbouring Romania.

Austere Berlin church becomes rallying point for reformers

By Leslie Colitt in East Berlin

A RED-BRICK Protestant church in a working-class area of Berlin has become a rallying point for East Germany's reform movement – not unlike the Gdansk shipyard in the early days of the Solidarity trade union.

Just as the yard was often off limits for Polish authorities, there is a widening "no-go area" for the East German police around the large, austere Gethsemane church.

Thousands of formerly passive citizens, radicalised by this month's demonstrations, gathered over the weekend at the turn-of-the-century building. It became a haven for demonstrators, pursued by baton-wielding police, after the first big demonstrations in the current wave of protest on October 7 and 8.

Paradoxically, the atmosphere is less overtly religious than it was at the Polish shipyard. In contrast to fervent masses recited by Gdansk workers, there are few who would normally be worshippers among crowds streaming into the Gethsemane church every evening to attend services calling for release of political prisoners.

One of their purposes is to exchange information. Strangers open up to each other in the flickering light from thousands of candles placed outside the gaunt edifice.

"I applied to emigrate in 1986 and lost my job," an ex-employee of a state bakery told a knot of people. "A few weeks ago I joined New Forum [opposition group] when I saw the demonstrations getting bigger and stronger. I've come here every day since." He no longer wanted to emigrate because "for the first time" there was a chance to change things. "Don't think the Party is going to change," a young carpenter replied. "It has specialised for 40 years in keeping power and won't step down now."

What did they expect from the new leader, Mr Egon Krenz? "We want our opinions to count," said a mechanic. "It wouldn't cost the Party anything. Most people don't want more than a little freedom to travel – at least for the time being," he added.

- A major pro-reform demonstration is due to take place today in Leipzig after a weekend of renewed protests throughout East Germany. Last Monday's demonstration by over 100,000 citizens in Leipzig was the largest in East Germany since 1953.

First ANC rally for 29 years permitted

By Michael Holman

THE South African government has given approval for the first African National Congress (ANC) rally in 29 years.

The decision, which was made known as Mrs Margaret Thatcher and the rest of the Commonwealth leaders meeting in Kuala Lumpur, were differing sharply over policy towards South Africa, is likely to reinforce the British prime minister's view that President F.W. de Klerk is initiating significant changes.

Permission for next Saturday's rally in Soweto, to be addressed by Mr Walter Sisulu and the six other ANC prisoners released a week ago, marks a further step in the de facto unbanning of the organisation.

For its part, the ANC appears to have suspended its guerrilla campaign against Pretoria, although its officials have yet to spell this out. There have been no reported violent incidents linked to the ANC's military wing, Umkhonto we Sizwe, for nearly two months.

These mutual concessions have brought the two sides closer to direct talks, although negotiations are not expected to take place until Mr Nelson Mandela, the ANC leader, is released.

Saturday's ANC rally will be the first since the organisation was banned in 1960.

"Apart from being a welcoming party, the rally is going to be an occasion at which our leaders will be making a major address to the nation on a whole range of issues," Mr Cyril Ramaphosa, secretary-general of the National Union of Mineworkers, said at the weekend.

Mr Ramaphosa said the National Reception Committee, which is organising the public appearances of the released detainees, had not sought government permission for the rally, to be held in a new soccer stadium near Soweto.

But letters had been sent to Mr de Klerk, as well as to the Minister of Justice and to the chief magistrate of Johannesburg, informing them of the plans.

Pretoria shift may be attainable

The following are the key points in the statement "Southern Africa: the way ahead", issued at the Commonwealth summit yesterday:

Heads of government continued to view the system of apartheid in South Africa as a serious challenge to the values and principles of the Commonwealth and reaffirmed that its total eradication remained their shared responsibility and common goal.

Significant changes in approach on the part of the South African government, for which the Commonwealth had striven for so long, may yet prove to be within reach.

Heads of government agreed that such encouraging signs as there had been were very much the product of a combination of internal and external pressures.

They agreed that the only justification for sanctions against South Africa was the pressure they created for fundamental political change. Their purpose was not punitive, but to abolish apartheid by bringing Pretoria to the negotiating table and keeping it there until that change was irreversibly secured.

Heads of government, other than Britain, also acknowledged that the impact of sanctions had begun to influence the policies of the South African government.

Commonwealth heads of government expressed the view that this was not the time to consider any relaxation of existing sanctions and pressures. That would have to await evidence of clear and irreversible change.

In the meantime, they agreed that all existing sanctions and measures should be maintained, and they called upon the wider international community to do likewise.

They also agreed, with the exception of Britain, that such measures should be tightened, and decided in this context

(a) to develop new forms of financial pressure on the Pretoria regime by seeking to intensify and extend financial sanctions, in particular by,

– calling on all relevant banks and financial institutions to impose tougher conditions on day-to-day trade financing, specifically through reducing the maximum credit terms to 90 days. And,

– calling on relevant governments to make trade credits harder by taking South Africa "off cover" with official government agencies for official trade credit and insurance purposes.

(b) to strengthen the arms embargo.

Heads of government recognised the importance of South Africa's dealings with the international financial community and therefore, with the exception of Britain, endorsed the establishment of an independent agency to review and report on South Africa's international financial links on a regular basis, and to gather and publicise factual information on financial flows to, and policies towards, South Africa. They welcomed the offer of Australia to provide substantial initial funding.

They agreed to ask appropriate international financial institutions, and in particular the International Monetary Fund, to examine how resources might be mobilised upon evidence of clear and irreversible change.

With the exception of Britain, heads of government commended the Commonwealth committee of foreign ministers... agreed that it should continue with its work... and that it report again when heads of government next meet. They expressed the wish that it reconvene in April, some six months after the new administration in Pretoria took office.

PROPOSALS for greening of the Commonwealth were painlessly agreed at the weekend with heads of Government accepting the broad outline of the plan put forward by Malaysia in the so-called Langkawi Declaration, named after the holiday island to which leaders had retreated, Roger Matthews writes.

Representing a quarter of the world's population, the Commonwealth has set out objectives and common goals for improving the environment but, at Britain's instigation, avoided specific commitments on funding.

Britain opposed the establishment of a special fund and Malaysia had made it clear it would be flexible on this point.

Commonwealth leaders pledged themselves to "immediate and positive action" in support of their declaration.

Why Britain stood alone on S Africa

Extracts from the British statement, entitled "Southern Africa: the way ahead: the British view".

Britain is fully at one with the rest of the Commonwealth in utterly condemning apartheid and wishing to see its total eradication... Britain welcomes the recognition in the Kuala Lumpur statement:

- that change is under way in South Africa;
- that sanctions should not be punitive and that the international community will need to respond to evidence of clear and irreversible change; and
- that both sides should come to the negotiating table in an atmosphere free of violence from either side.

But Britain believes the Commonwealth can help a new South Africa to emerge is much more positive ways that those set out in the Kuala Lumpur Agreement.

In Britain's view there have been important and positive changes in South Africa... and there is now a government fully committed to the concept of negotiations.

The Commonwealth should concentrate now on encouraging change rather than on further punishment. Whatever their intention, the effect of sanctions is punitive.

Sanctions contribute to poverty and misery. Britain's efforts are directed to helping relieve poverty throughout Africa.

Britain does not agree that sanctions have the political effects claimed for them. The political effect of sanctions is to increase resistance to change rather than encourage change. Opening the way to serious negotiations requires:

- The release of Nelson Mandela and all political prisoners;
- Lifting of the state of emergency;
- Unbanning of political organisations;
- The suspension of violence.

As and when South Africa does take the necessary steps then it would be right to lift some of the measures imposed by the international community. The aim should be to secure positive influence with the South African government rather than add to the sanctions, which have been largely fruitless.

At the same time, Britain will continue its substantial programme of positive help for black South Africans, and its assistance to the front line states, which since 1980 has totalled £1.1bn.

Britain also gives its unequivocal support to the UN Secretary-General in securing the implementation of Resolution 435 in Namibia. It will be for him and his representative alone to judge whether the elections are fully fair and free.

Britain is ready to provide financial assistance to an independent Namibia as well as, if asked, military training for its armed forces.

Britain believes that recent developments in southern Africa show that progress can be made by peaceful negotiation. Britain wants the Commonwealth and the international community to redouble their efforts to support peaceful change and enable the new South Africa to inherit a strong economy.

This will more likely be achieved by the positive and constructive steps set out in this statement than by tightening sanctions and the imposition of new punitive measures as proposed by the rest of the Commonwealth.

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OVERSEAS NEWS

Opposition staff arrested ahead of Zimbabwe poll

By Julian Borger in Harare

THE Zimbabwean government has carried out a wave of arrests in advance of four parliamentary by-elections which take place this week.

The arrests include officials of the opposition Zimbabwe Unity Movement, formed this year, which has mounted an energetic challenge to President Robert Mugabe's ruling ZANU-PF party.

ZUM's campaign in the northern constituency of Kariba has been handicapped since the detention by the Central Intelligence Organisation of 11 activists in the area.

Ten days ago, another group of ZUM party workers returned to Harare from Kariba having apparently been severely beaten. They say they were assaulted by ZANU-PF youths.

The crackdown began on the university campus, where the arrest of two student leaders for publishing a document fiercely critical of the government led to student riots on October 4, and the closure of the campus for the first time in its 32-year history. It reopens for examinations today but 13 students are still in custody, having been refused bail.

When Mr Morgan Tsvangirai, secretary general of the Zimbabwean Congress of Trade Unions, criticised the campus closure, he was also detained by the CIO. Like the students and ZUM activists, the union leader has been held under the emergency powers regulations that have been in force here since Mr Ian Smith declared Rhodesia independent in 1965.

When Zimbabwe's High Court overturned Mr Tsvangirai's detention on Wednesday last week, deciding his statement did not justify use of the emergency powers, he was immediately rearrested, this time on charges of being a South African spy and agent provocateur.

In the past, critical statements from the students and the trade unions have met with a degree of tolerance from the state, as long as the dissent was confined to paper.

This blanket use of the emergency powers suggests a new get-tough policy decision, taken at a high level, in the run-up to the by-elections in the next two days.

The four constituencies voting this week are evenly spread across the country – Kariba in the north, Chirumanzu and Masvingo in the central regions, and Gwanda in the south – and should provide a good test of public opinion before general elections scheduled for next year.

In theory, ZANU-PF should be in its best position for years, having just held "unity" elections in the nine provinces this month which finally fused the party together with its former rival, Mr Joshua Nkomo's PF-ZAPU. However, the ruling party has been badly hit this year by the revelation of widespread corruption among its senior ranks.

Public disillusion with the party was reflected in July by a mass stay-away from the polls in the country's last by-election, when ZANU beat the two-month-old ZUM opposition, amid allegations of rigging by ZUM's leader, Mr Edgar Tekere.

The reappearance in senior posts, after the party elections, of ZANU-PF officials disgraced only a few months ago on serious charges of corruption perhaps explains the apprehension with which the country's leaders are approaching this week's polls.

● After strong growth in the first half of 1989, there are increasing signs that Zimbabwe's economy is slowing down. Especially hard-hit is the manufacturing sector, which is suffering from transport bottlenecks and a sharp loss of confidence resulting from disappointment in the pace of government reforms.

Following growth of 8.3 per cent in the manufacturing sector in the first half of the year, a survey carried out by the Confederation of Zimbabwe Industry (CZI) published last week has revealed a sharp decline in expectations on a wide variety of indicators.

CZI economists believe the biggest factor behind the loss of confidence is the maintenance of price controls.

Shrinking Euphrates raises Turkish-Syrian tension

Scheherazade Daneshkhu and **Andrew Gowers** see water becoming a weapon in the Kurdish dispute

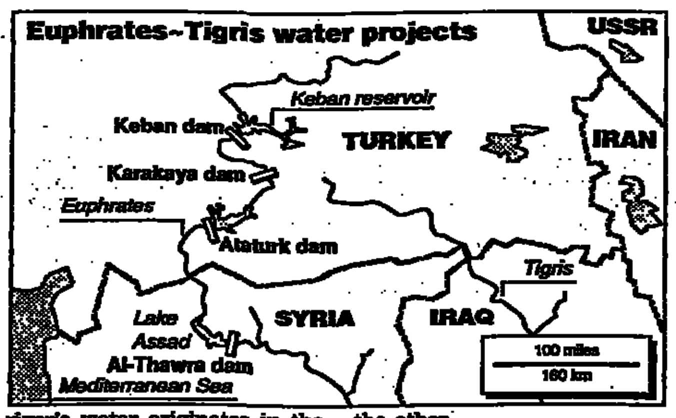
LONG-SIMMERING tensions between Turkey and Syria have burst into the open in the last few weeks, throwing the spotlight on that most sensitive of Middle Eastern issues: the scarcity of water.

Not for the first time, what is arguably the region's most valuable resource is being used as a strategic weapon in the old dispute between the two neighbours over the Kurdish issue.

The question has been brought into focus by an extraordinary outburst from Mr Turgut Ozal, the Turkish Prime Minister who is now running for president. This month, he accused Damascus of breaching a 1987 protocol on security and threatened to cut the flow of the Euphrates river into Syria unless the latter ended support for the Marxist Kurdish Workers Party (PKK).

Given the prime minister's current political troubles, his remarks may well have been aimed at his domestic audience as much as his southern neighbour. But the statement touched a raw nerve in Turkish-Syrian relations at a time of severe drought problems in both countries and a growing Kurdish rebellion in south-eastern Turkey. It may also have provided an ominous foretaste of problems to come between the states sharing the waters of the Euphrates.

Euphrates–Tigris water projects



Nearly 90 per cent of the river's water originates in the Turkish highlands, running 2,330km (1,460 miles) from Turkey to Syria and then into Iraq. All three countries have rapidly-growing populations and ambitious plans to harness the river's resources.

But Syria's water supply problem is the worst of the three and its quest for alternative sources could in addition easily lead it into potential conflict with Israel over the Yarmuk river, a tributary of the Jordan.

In Turkish-Syrian relations, the twin issues of Kurds and water surfaced together in July 1987, when Mr Ozal visited Damascus and signed a security protocol with Syria's President Hafez al-Assad under which each country agreed to try to curb terrorist groups carrying out operations against the other.

Separately, Turkey promised to try to maintain the flow of the Euphrates into Syria at an average of 500 cubic metres per second.

For a while it seemed to be working. But a dramatic upsurge in fighting between Turkish forces and Kurdish insurgents – with the monthly average death toll more than doubling, from 30 to 70 – has brought renewed expressions of concern from Ankara about alleged Syrian support for the PKK.

Turkish officials point to what they are convinced are two PKK training camps in the Syrian-controlled Bekaa valley in eastern Lebanon. Since the summer, they also claim to have detected signs that Kurdish guerrillas are escaping across the border into Syria after conducting raids in Turkey.

More darkly, they mutter about suspicious activities being undertaken by a new Bulgarian consulate-general in the northern Syrian city of Aleppo. This mission – from a country currently at odds with Turkey over an exodus of Turkish speaking inhabitants – is said to be well staffed with Turkish-speaking diplomats who the Turks claim make regular forays into Syria's Kurdish areas.

It may be convenient for the Ankara government, which has been heavily criticised in this election year for failing to control the rebellion, to blame the worsening security situation in Turkey's south-eastern provinces on outside forces. But in doing so, it has exposed frictions that are in any case being exacerbated by the water shortage in both countries.

This year has been Turkey's driest in 52 years. The flow of the Euphrates has been sharply reduced, and agriculture and the country's balance of payments are suffering.

The situation is no better in Syria. With the water level sinking behind the main dam on Lake Assad, which normally generates a sizeable proportion of Syria's electricity supply, major cities have experienced protracted power and water cuts throughout the summer. The country has had to import large amounts of grain that it can ill afford, and to consume fuel oil that would otherwise have gone for export.

Syria on Saturday ordered an inquiry into the downing of a Turkish civilian aircraft and offered condolences to the Turkish government, which accused Syrian aircraft of shooting it down with the loss of five lives, Reuter reports.

The Syrian Foreign Ministry said Damascus hoped the incident would not affect relations between the two countries.

Turkey said earlier two Syrian MiG-21 jets shot down on Saturday morning a Turkish survey plane about 13 miles inside Turkish territory.

More to the point, the drought, by reducing the flow of the Euphrates from Turkey, has stoked Syrian unease at being beholden to its northern neighbour for water. At some points during the summer, the flow dropped well below the 500 cu m/sec which Ankara promised to supply – although Turkish officials say that they have topped up the flow to 480 cu m/sec by releasing water from their own Keban and Karakaya dams.

Despite Mr Ozal's recent pronouncement, Ankara denies that it is using water to pressure the Syrians. "It would be very attractive to use water as a weapon, but we have not resorted to that, and the Syrians know it," said one senior official. All the same, the threat remains clearly implied.

In the medium to long term, problems between the two countries over water are in any case almost inevitable, given Turkey's continuing dam construction work on the Euphrates as part of its ambitious south-east Anatolian development project (GAP). These dams generate more than 40 per cent of Turkey's electricity but have already severely reduced the flow of water into Syria. And the giant Atatürk dam, third and largest of the series, with a storage capacity equivalent to four times the average yearly discharge of the Euphrates, is now nearing completion.

The problem is that no formal agreement has ever been reached between Turkey and the two downstream states, Syria and Iraq, on sharing out the waters of the Tigris and Euphrates. Tripartite talks held intermittently since the 1960s have recently tapered off.

The potential for disputes between the riparian states in the next few years is clearly enormous. "The situation is bad and getting worse," said Professor Elias Salameh of Jordan University this month at the annual Arab Press Service conference in Cyprus. "Unless [co-operative] steps are taken the water issue will develop into a major conflict in the Middle East."

Spanish nuclear plant comes close to disaster

By Peter Bruce in Madrid

AN ageing nuclear power plant south of Barcelona came close to disaster on Thursday night after one of its two turbine generators exploded, seriously damaging the safety mechanisms that cool its reactor.

Engineers at the Vandellos I plant near Tarragona were yesterday still trying to cool the core of the plant's reactor. Two of its four cooling pumps were put out of action by the blast.

No one was injured in the blast and there was no escape of radiation. But officials were being quoted yesterday as saying the accident was the most serious in a nuclear facility since the Chernobyl reactor exploded in 1986.

Smoke, which had begun to seep into the plant from the central control room, made it nearly impossible to begin cooling the core.

Vandellos's management has come under criticism from the civil governor in Tarragona for allegedly waiting more than half an hour before alerting the authorities. The nuclear plant, one of Spain's oldest, was built using French technology in 1972. The gas-cooled plant, which is scheduled to close in 2003, has been shut down and may not produce again.

Swedish tax reform proposals amended

By Robert Taylor in Stockholm

SWEDEN'S ruling Social Democrats have modified their tax reform proposals for 1991 in line with the demands of the powerful blue-collar union organisation, the LO, for a more redistributive approach.

After three weeks of wide-ranging discussions among all Swedish political party leaders and both sides of industry, the Finance Minister, Mr Kjell-Olof Feldt, has agreed to reduce the highest marginal rate of central government income tax from 72 per cent to 55 per cent, rather than the 50 per cent which he had originally intended for those earning over SKr200,000 a year.

The revenue raised from this change in the tax plan of around SKr4bn will go to ease the tax burden on Sweden's 1.7m workers who earn less than SKr125,000 a year – about 40 per cent of the labour force.

Next year, in the first stage of the reform, there will be a cut of 7 per cent in central income tax for those earning over SKr75,000 a year and 2 per cent for those earning less, in a total reduction in the income tax burden of SKr23.5m.

IG Metall builds up strike reserves

By David Goodhart in West Berlin

IG METALL, the 2.6m-strong West German engineering union, has built up reserves unofficially put at nearly DM1bn (£340m) to fight a possible strike early next year in the metal industry.

Because of a change in the labour law, any strike action next year – over pay, reduced working time, and retention of free weekends – will be far more expensive than it was in 1984, when the union paid out DM500m to key groups of striking workers on strike for seven weeks.

In the weeks leading up to the union's annual conference, which opened yesterday in West Berlin, IG Metall has been sternly warned against pressing for a further cut in its current 37-hour week by Economics Minister Mr Helmut Haussmann and by employers' leader Mr Klaus Murmann.

Mr Franz Steinkühler, IG Metall leader, has accused Mr Haussmann of breaking the spirit of the country's industrial relations law, which forbids political interference in negotiations. Although the current three-year contract in the metal industry does not end until next March, talks are likely to begin this year.

Bush vetoes easing of abortion funding

By Peter Riddell

US President George Bush over the weekend fulfilled his pledge to veto legislation passed by Congress that would have eased restrictions on Federal funding of abortions by allowing assistance for poor women in cases of incest and rape.

In his veto message, Mr Bush, who has shifted his position to a tougher anti-abortion stand in recent years, argued that Federal funds should only be used for abortions when the life of the mother would be endangered.

Supporters of a relaxation of abortion funding almost certainly do not have the two-thirds majority in both Houses needed to overide a veto since the measure only passed the House by 216 votes to 206.

The abortion issue is now at the forefront of political debate in the US since the Supreme Court ruled in early July to give greater discretion to individual states.

However, the anti-abortion forces have suffered a number of setbacks since then.

Earlier this month the House of Representatives voted for the first time in eight years to permit payment for abortions for poor women in cases of rape or incest and in another setback for those who oppose abortion, the Florida state legislature refused to restrict abortions and to introduces changes to the current law.

Moreover, anti-abortion Republican candidates have been on the defensive in bitter fights for the governorships of New Jersey and Virginia.

The Democratic leadership in Congress, which originally feared it would lose out over the abortion issue, is now more confident that it may gain.

This is because sizeable numbers of women aged between 20 and 40 who swung to the Republicans during the elections of the 1980s do not want tighter restrictions to be imposed on abortions.

Senator George Mitchell, the Democratic Majority leader, said over the weekend that the veto would "hurt the Republicans, especially with young people."

The Republicans made opposition to abortion their issue, but now they are on the defensive and groping for a way to modify their position."

House Speaker Tom Foley has acknowledged that the House was unlikely to muster the two-thirds majority vote needed to override a veto.

Mr Bush's veto was expected after efforts to reach a compromise with members of Congress had broken down early in the week.

US signals irritation over Israeli stance

By Peter Riddell, US Editor in Washington

THE US State Department is making public its increasing irritation with Israel's attitude to negotiations over elections by Palestinians in the occupied territories.

After a week of intensive telephone exchanges between Washington and Jerusalem, a senior US official briefed reporters that Mr James Baker, the US Secretary of State, is "not going to pursue this (his five-point plan for an Israeli/Palestinian dialogue on elections) from here to eternity." The official said that Mr Baker was giving the problem "100 per cent but there could be a limit to how long you continue." The US position has previously been of patience in face of obstacles, but last week the State Department described the comments of Mr Yitzhak Shamir, the Israeli Prime Minister, as "unhelpful and disappointing."

US officials feel that Mr Shamir is creating obstacles to the fulfillment of his own election plan and they believe the responsibility, and any blame, should be shifted to him if there is a stalemate.

The hope in Washington is that this will increase pressure for concessions by Mr Shamir, who is due to visit Washington next month. But there is no question of any reduction in the US's $3bn a year military support for Israel.

James Baker: no leaf unturned

Ms Margaret Tutwiler, the State Department spokeswoman, said that Mr Baker believed there may be "a possibility for progress, but it is certainly not a probability. If the parties in the area do not have the will to overcome their political constraints, we cannot produce progress by ourselves."

Mr Baker again talked to the Israeli and Egyptian foreign ministers at the end of last week. A senior official said that Mr Baker wanted to make sure he left "no leaf unturned. But when you get to the point where you've done 100 per cent of what you can do, you turn your attention away to other parts of the world."

Honduran minister among air crash dead

By Tim Coone in Managua

A BOEING 727 airliner of the Honduran airline SAHSA, with 132 passengers and crew aboard, crashed into a mountain on Saturday morning as it approached Toncontin airport at the Honduran capital Tegucigalpa. Fifteen survivors have been reported including the pilot.

The aircraft was on a regular flight from Managua, the capital of Nicaragua, and was apparently flying an instrument approach to Toncontin through bad weather. Among the victims were Mr Armando Blanco, Honduras' Minister of Labour, and the daughter of the Honduran Minister of Defence as well as seven United Nations officials who had been attending a conference on population in Managua.

Mr José Azcona, the Honduran President, said it was believed the crash was caused by mechanical failure.

Regular air travellers in Central America know Toncontin airport as a "white knuckle" destination. Its short runway and location in the middle of mountains makes take-off and landing difficult even for experienced aircrews.

Government costs in tackling earthquake estimated at $4.4bn

By Peter Riddell

THE cost to the Californian and US Federal governments of dealing with the San Francisco Bay earthquake last Tuesday is now officially estimated at a minimum of $4.4bn, of which more than $3bn will come from Washington.

As the Bay area prepared for a return to full working today, there was surprise and delight throughout the US over the rescue on Saturday of 57-year-old Mr Buck Helm from his car which had been nearly flattened by the collapse of the two-tier I-880/Nimitz freeway in Oakland. Mr Helm's condition was yesterday critical.

Authorities originally estimated that as many as 250 people had died in the earthquake but they now say that figure was much too high.

Lieutenant Governor Leo McCarthy of California said yesterday that government assistance might amount to at least $4.4bn, with at least three-quarters coming from Federal government and most of the rest from the state government. That excludes provisions by insurance companies and homeowners.

California Governor George Deukmejian said that some of the money would come from a $1bn reserve for emergencies. He wanted to know full estimates of the cost of the damage and what the Federal Government would provide before deciding whether to increase taxes. He did not rule out a special tax increase, which would reverse more than a decade of tight curbs on taxes and spending in California.

Congress is planning early action this week on legislation to increase the amount of Federal funds available. Democratic Senator Alan Cranston from California said more than $3bn would have to be provided from the Federal Emergency Management Agency, the Small Business Administration and the highway fund. He predicted that there would be sufficient votes in Congress to secure a waiver of the Gramm-Rudman deficit reduction law for this amount.

Senator Daniel Moynihan, chairman of the Senate subcommittee on transportation and infrastructure, said money would come from the $12bn surplus on the Federal highway trust fund.

Californians braced for traffic standstill in San Francisco

HUNDREDS of thousands of Northern California residents must find new ways to get to work today, writes Louise Kehoe in San Francisco.

Transport authorities are predicting huge traffic jams as businesses attempt to resume normal operations following last week's earthquake.

The collapse of Highway 880 in Oakland and the mid-span failure of San Francisco's Oakland Bay Bridge have created serious problems for those getting to work in San Francisco from Oakland and other cities on the East Bay.

Exacerbating the problems, however, several of San Francisco's other main thoroughfares have been closed because of structural damage.

At the weekend, transport authorities continued to inspect elevated highways and overpasses throughout Northern California. By Saturday evening, it was evident that damage may be far more widespread than reported initially.

Several more streets and highways were closed, including one of three major routes to San Francisco Airport.

Public transit authorities warned of "gridlock" and urged San Francisco commuters to take advantage of additional ferry, train and bus services that have been hastily arranged to compensate for the blocked freeways.

Even if used to full capacity, however, public transport can only dent the problem. Some 250,000 vehicles normally cross the Bay Bridge each weekday morning. Only about 10,000 passengers can by carried by the expanded ferry services which now link San Francisco to Oakland. Authorities hope to alleviate the problems by encouraging car pooling and flexible work hours.

There is little doubt, however, that traffic difficulties will have a significant economic impact on businesses throughout Northern California for the next few months.

French greet Antarctic talks as step to accord on environment

By Ian Davidson in Paris

THE 39 signatories to the Antarctic Treaty have agreed, after a protracted and acrimonious meeting, to hold a special round of negotiations next year to set up a "comprehensive protection system" for the continent's environment.

The agreement, hammered out at midnight on Friday, was greeted by the French Government as a breakthrough for its argument that Antarctica needs a global protection system to turn it into a "Natural Reserve".

"The machine is on the rails and it is coming round", said Mr Brice Lalonde, French Environment Minister, triumphantly, after naming the US and the UK as France's main "adversaries" in last week's negotiation.

The French proposal, jointly sponsored by Australia, was fiercely opposed by a number of other Antarctic Treaty states, led by the US and Britain.

The US and the UK opposed the proposal for a Natural Reserve on grounds that it would rule out indefinitely any exploration or exploitation of mineral resources.

The British Government claims that recently negotiated safeguards would satisfactorily protect the Antarctic against environmentally damaging mining. It adds that technology may one day make mineral exploration in the Antarctic environmentally safe, while the French plan would rule this out for ever.

The decision to hold a Special Consultative Meeting next year, solely devoted to negotiation of a comprehensive protection system, is a significant if partial victory for the French case.

The other member-states have not agreed in advance that the end-product of next year's negotiation will be a Natural Reserve; but they have agreed that the only purpose of the negotiation is "the creation of a comprehensive protection system in Antarctica" and they have agreed that all proposals submitted on this subject will be on next year's agenda.

In return, the French Government has agreed to the holding of a separate round of negotiations next year on a liability convention in the framework of the Wellington Convention on minerals exploration in the Antarctic.

The Wellington Convention, which would tightly restrict any exploration or exploitation of minerals in the Antarctic, was negotiated last year.

But it is still in a state of suspended animation because France and Australia have concluded that any exploration could be a threat to the Antarctic environment and have withheld their signatures so that the the Convention cannot come into force.

The agreement to hold parallel negotiation on liability for environmental damage under the Wellington Convention carries the unstated overtone of a concession of principle by France and Australia to the US and the UK, since it seems to imply some continued support for the Convention.

French spokesmen insist, however, that the two negotiations will not really be parallel, will not be of equal status and may well not take place at the same time and place.

The environmental negotiation, they point out, will take the form of a Special Consultative Meeting, in formal terms the Antarctic Treaty system's highest decision-making form, whereas liability will merely be examined at "a meeting" in 1990.

France insinuates it will probably stay away from the negotiation on the liability aspects of the Wellington Convention.

Despite the ferocity of the antagonism between France and the Anglo-Saxon states at last week's negotiation, the final compromise has a paradoxical compensation for both sides.

During the uncertain period between signature and eventual ratification, the Wellington Convention included a moratorium on any mineral exploration in Antarctica. In rejecting the Convention, France and Australia took the risk that some countries might take advantage of an arguable legal vacuum to press ahead with mineral exploration regardless.

Last week's agreement to open a liability negotiation clearly implies that all Antarctic Treaty states intend to stand by their moratorium on any mineral exploration in Antarctica for the foreseeable future.

Argentine rebel dismissed

THE Argentine Army has dismissed rebel leader Lieutenant Colonel Aldo Rico who led two uprisings in April 1987 and in January last year, Defence Ministry officials said last Friday. Reuter reports from Buenos Aires.

Another lieutenant colonel and three captains who had supported Rico and gone into hiding were also dismissed.

Lt Col Rico, a veteran of the 1982 Falklands war with Britain, led a group of young officers in the first revolt to protest at what they saw as passivity by their commanders while subordinates stood trial for human rights abuses during the "dirty war" of the 1970s.

"Where do I check in?"

"I've left my ticket in the taxi."

"Which gate is my flight?"

"My luggage has gone through and I need something from it."

"My car's outside on double yellow lines."

"I think that's my plane taking off."

"My canary's escaped."

"Can I get a coffee around here?"

"I can't do my zip up."

"Can I get into New York by helicopter?"

"What time do we get there?"

"Just how wide are the seats?"

"Do they have nappies on board?"

"Where do I get a newspaper?"

"Do they sell Russian vodka in duty free?"

"Where's the Ladies?"

"Where's the Gents?"

"Where have all the trolleys gone?"

"Is the Pink Poodle Club on 48th Street or 49th?"

"Do we get to see where the pilot sits?"

"What happens if it's full?"

"Where can I get an oil filter for a 1965 Hillman Imp in Chicago?"

"Do they take traveller's cheques in duty free?"

"Where's the London desk?"

"What do I do with this?"

"Can I go through to the Departure Lounge now?"

"Where is the Departure Lounge?"

"They've put the wrong name on my ticket."

"Can I get a bassinet for my baby?"

"I'm looking for some string."

"Does my camera have to be X-rayed?"

"I've just noticed my passport's out of date."

"I need an aspirin."

"Kann ich am J.F.K. Flughafen direkt zum Flug nach Chicago umsteigen?"

"Where's the Ambassador Lounge?"

"Do I need a Visa?"

"Can I take these as hand-luggage?"

"Can I change to a later flight?"

"What do I do now?"

"I have to phone my wife."

"Is there a phone anywhere?"

"Είναι ο Πήτερ ´Αιζντελ-Κάρπεντερ εκεί;"

"Anybody got a pen?"

"What time is it?"

"Is New York ahead or behind?"

"Can I hire a car there, from here?"

"Is it sunny in Los Angeles?"

"Will my hair dryer work in Minnesota?"

"I can't find a porter."

"My aunty's gone missing."

"Will they have any dominoes on board?"

"Are there any seats in non-smoking?"

"What's for dinner in First?"

"What film are they showing?"

"Is there a nice restaurant in Toledo?"

"How do I get into town from JFK?"

"My case is too heavy."

"How far is Philadelphia?"

"Is it on time?"

"Can I change this non-changeable ticket?"

"Can I choose my seat after I get on board?"

"I'd rather sit at the back of the plane."

"Can I order a special meal?"

"I can't find my boarding card."

"What star sign is the pilot?"

"I need to send a fax."

"Is there a wheelchair somewhere?"

"Is there a lift?"

"Do I have to be X-rayed?"

"Please, somebody."

"Which way now?"

"My seat's supposed to be reserved."

"Will they wait for me?"

"Can I change my money here?"

"What's going on?"

"How many bags am I allowed?"

"What's the code for Dayton, Ohio?"

"Is it too late to order a kosher meal?"

"What escalator?"

"Can I leave my rented car keys with someone?"

"Maybe someone will change seats with me?"

"Will we all be able to sit together?"

"Can my son sit in the cockpit?"

"Is it too late to change my flight?"

"Is it too early for the bar?"

"Will there be any film stars in First Class?"

"Who won last night's ball game?"

"I didn't hear that."

"Is it are not my wife's ticket here to pick up. ¿Qué?"

"How do I make my connection in New York?"

"Help!"

TWA give you someone to buttonhole.

We've been listening to some of the questions that get asked at the airport. (See above.)

And having listened, we've come up with an answer. In fact, a whole host of answers.

The TWA 'White Coats'.

A team of young men and women whose job it is to be on hand at our Heathrow and JFK terminals looking for problems.

Your problems. (See above.)

So now if you find yourself waiting for one of our 6 daily flights to the USA, and your passport disappears, or your mother-in-law needs some elastic in a hurry, you know who to turn to.

The person in the white jacket. With the red carnation in the buttonhole.

TWA

For the *best* of America

OVERSEAS NEWS

Road haulage single market is still a long way from reality

Discussion of a modest experiment to liberalise transport has run into determined opposition, Tim Dickson reports

FEW ideas in Brussels are ever expressed in a single word. But if you ask those trying to achieve a single market in road transport how they want to get there, a mere three-syllable answer will suffice.

"Cabotage" – the practice of allowing non-residents to offer road haulage or indeed other transport services within a member-state – is seen by architects of the 1992 programme as a big test of the European Community's real political and economic resolve.

Road haulage cabotage is intended to break down barriers that restrict national markets to domestic carriers. Enthusiasts believe it will fill at least some of those lorries forced to return home empty after cross-border journeys – and bring tangible financial benefits to road transport users in lower tariffs.

Others say it will help speed rationalisation of an industry suffering in many member-states from over-capacity and already under pressure from investments in competitive new air and rail links.

Last week's meeting of EC transport ministers in Luxembourg demonstrated that road haulage cabotage is one area where the single market dream is still a long way from reality. Discussion of a relatively modest experimental scheme ran into determined opposition from both France and West Germany, and earlier expectations of significant progress on road haulage cabotage by the end of this year are now being revised.

The arguments of ministers who fear their industries will be swamped by fleets of low-cost operators seem to outweigh those who maintain that greater efficiency and worthwhile consumer gains are the more important prize.

The word "cabotage" appears to have no known connection with the Italian explorer John Cabot – appropriate though that might have been. One must be content with the definition from the French word *caboter* (to sail near the coast). Normally applied to coastal navigation within the borders of one country, the word has come to describe non-resident operations in all forms of national transport.

The present Community-wide ban on cabotage is only one distortion of the single market in road transport. Competition is affected by different national regulations on capacity and access to the industry, and in some cases by tariff control, while a system of licences requires hauliers to apply for permits to move goods between member-states.

Because of a breakthrough by the EC Transport Council in June last year, the Community agreed to increase the number of EC quotas by 40 per cent in 1988 and 1989, while committing itself to scrapping the whole complex system of bilateral country-to-country and EC licences by January 1, 1993.

This means there will be no restrictions on lorries carrying loads from, say, London to Frankfurt (or vice versa). But as things stand, these same British and German hauliers will be prevented from collecting and delivering goods in France, or anywhere else, to make the return journey more lucrative (a freedom known in the jargon as "consecutive" cabotage).

A study by Ernst and Whinney estimated the cost of empty moves at roughly Ecu1.2bn (£830m), of which some 20 per cent may be related to regulatory restrictions. A study by DRI (Europe) in 1986 suggested the potential market for consecutive cabotage could be about 1.5 per cent of present domestic traffic.

Successive efforts to open up these opportunities have consistently been frustrated, despite clear political and Court of Justice deadlines. Article 75 of the Treaty of Rome calls for "the conditions under which non-resident carriers may operate transport services within a member-state" to be laid down "during the transitional period" (that ended in 1969).

1992 THE EUROPEAN MARKET

The European Court, in a ruling against the Council of Ministers in 1985, urged member-states to get on with the job, while the internal market white paper of the same year set a target for road haulage cabotage of 1988 "at the latest". The problem, as the Ernst and Whinney study observes, is that large countries such as France and Germany "with tightly regulated domestic haulage markets and high domestic rates" see themselves as particularly vulnerable. At the same time, "while operators in Northern Europe are worried about the influx of low-cost operators from southern Europe, the southern European operators are concerned about the inroads the highly efficient northern hauliers will make". Clearly, the consultants concluded, "this is a complex and highly emotive issue."

Aside from a few attempts to promote consecutive cabotage by the Benelux countries, the first real sign of political movement came in the first half of 1989 when the Spanish Presidency of the EC came forward with a limited but (most observers felt) worthwhile experimental scheme.

The idea was for an initial quota of just 5,000 cabotage licences, to be divided among the member-states and allocated to individual companies. Each licence would give the holder the freedom to operate anywhere in the Community for up to three months. The more liberal-minded countries such as Britain, the Netherlands, Belgium and Denmark were encouraged by the relatively relaxed conditions, but France and Germany expressed reservations. Bonn was anxious to apply its domestic rules. In the end, the package was not pushed to the vote.

Developments since the summer have centred on French efforts to water down the Spanish plan, notably in a proposed compromise assigning each cabotage quota to the member-state in which it would be used, and limiting its duration to one month.

France, which holds the EC Presidency till the end of the year, is concerned that its large and centrally located domestic market is the most vulnerable to EC liberalisation. But critics argue that its alternative plan – involving in effect 132 separate quota systems, 11 for each member-country – can be seen as a step back rather than forward on the road to a single market.

That message was forcefully conveyed to Mr Michel Delebarre, the French Transport Minister, in preliminary discussions at a meeting of Community ambassadors earlier in the month and at last week's EC Transport Council in Luxembourg, where Mr Cecil Parkinson, the UK Transport Secretary, led the assault. Some EC officials and diplomats are even accusing France of betraying the office of the Presidency. The country holding that post is expected, they contend, to seek compromises in the Community interest rather than push a national point of view.

Whatever happens now – and a chastened Paris has at least promised to put part of the Spanish proposals back on the table – the problem for the liberals is to overcome conservative countries' fear of the unknown.

The Dutch and the Belgians point out, for example, that they liberalised their international road haulage markets in the early 1960s without any negative effects. Convinced that everyone can benefit in a European road haulage market projected to grow at 5 per cent per annum, these two countries and Luxembourg are understood to be working on plans to introduce cabotage in Benelux next year as a means of showing it can work. Mr Egide Roelants, economic adviser to the Belgian Road Haulage Association, observes that intra-EC transport represents just 5 per cent of the total EC road haulage business and that cabotage thus promises to open up 95 per cent of the market. He nevertheless believes that the economic impact should not be exaggerated, that companies would need to set up marketing operations outside their home territory, and that cross-border co-operation between internationally-minded firms is likely to be the way ahead.

A spokesman for Britain's Road Haulage Association, which last week ran a conference on this and other issues, agrees. "I think that people realise that in view of the growth of the market, it is not necessarily the big evil that is sometimes claimed. Hauliers will have to talk to hauliers to find solutions. It is a difficult one to solve but I just hope that an unwelcome scheme isn't imposed on us at the end of the day."

EC and Efta aim for 'real talks' next year

By David Buchan in Brussels

OFFICIALS from the European Commission and the six members of the European Free Trade Association (Efta) have ended nearly six months' talks by identifying key questions for possible real negotiation next year.

The political decision whether or not to launch into negotiations, involving sensitive sovereignty issues as well as commercial matters, will be taken when ministers of the 12 EC states and the six Efta countries meet on December 19.

Officials have reached certain "common conclusions" in their talks, aimed at seeing whether the 18 countries could, in the words of Mr Jacques Delors, Commission president, achieve "a more structured partnership with common decision-making and administrative bodies".

But they refused to divulge the exact content of these conclusions ahead of a special Efta ministers' meeting in Geneva this Friday and debate within the full Brussels Commission.

Both sides said it had been harder to find common language on the question of future institutional links between the two organisations than on the aims of assuring free circulation of goods, services, capital and people within a "European Economic Space" combining the EC and Efta.

An Efta official spoke of the "common view that there should be common administrative, even surveillance, bodies which would be able to receive complaints, and in the final analysis, common judicial arrangements".

One option discussed, at least on the Efta side, is the Community's Luxembourg court sitting alongside six Efta judges. This presupposes prior negotiations of common rules for such a joint judicial bench to interpret.

Efta countries have ruled out adoption of the Community's common agricultural policy, though the six countries might negotiate, either jointly or severally, improvements in farm trade with the EC, the official said.

The Efta countries make up the EC's largest trading partner, though Austria has applied for full EC membership. But for the moment it is at one with other Efta states – Switzerland, Sweden, Norway, Finland and Iceland – in seeking a new deal with Brussels.

Algerians in bid to boost gas exports

By Francis Ghilès in Paris

ALGERIA'S state oil and gas monopoly, Sonatrach, is negotiating a contract – initially worth about $600m (£375m) – with a number of European and United States companies to revamp the gas liquefaction utilities in Arzew, the country's major oil and gas export base.

Companies such as Bechtel, Foster Wheeler and Sofregaz are known to be interested in the Algerian plans to increase the country's gas export capacity.

The hope is that as the many disputes which have marred Sonatrach's relations with its leading European and American customers since 1979 are settled, the volume of gas it is selling abroad will increase from 26bn cubic metres in 1988 to over 30bn cubic metres this year.

Just under two-thirds of this gas is exported in the form of Liquefied Natural Gas (LNG), while about 11.5bn cubic metres travel to Italy under the Straits of Sicily through the TransMed pipeline.

Algeria's other priority, at least where gas is concerned, is that of expanding the capacity of the TransMed line, which could help to meet the ever-growing demand for gas in Italy.

In oil exploration, Algeria is seeking to attract foreign investment, denied for a decade because of its restrictive laws regarding joint ventures.

Equally important is the need to improve the functioning of existing wells and boost production.

Many wells have been severely damaged in recent years as Sonatrach has been denied spare parts and foreign technical advice because of restrictive official policies.

Western oil companies believe that, with more freedom to operate, they could, for example, boost the annual production at the big oilfield at Hassi Messaoud within two years from 10m to 20m tonnes.

SHIPPING REPORT

Tanker rates set to peak

CHARTER rates for large oil tankers operating from the Middle East have risen to their highest level for several years, with prices being driven up by heavy demand from the Far East and Western oil companies, Terry Dodsworth reports.

Brokers say tariffs rose steadily last week, with a very large crude carrier being fixed at World Scale 75.

Galbraiths, the ship brokers, said scarcely any capacity is available from the Middle East for the rest of this month, with demand strong for early November.

Galbraiths says rates have probably almost peaked, partly because there should be more available tonnage in the second half of November.

By that time, refinery stocks should also have been largely replenished. But the industry expects prices to remain around their present levels until December.

WORLD ECONOMIC INDICATORS

INDUSTRIAL PRODUCTION (1985 = 100)

					% change over previous year
	Sept.'89	Aug.'89	July '89	Sept.'88	year
US	115.0	115.1	114.8	112.0	+2.7
	Aug.'89	July '89	June '89	Aug.'88	year
W. Germany	111.6	112.1	111.1	109.3	+2.1
UK	111.1	109.5	107.9	110.1	+0.9
Japan	121.6	118.1	121.2	114.6	+6.1
	July '89	June '89	May '89	July '88	
Italy	117.4	117.0	115.1	115.0	+2.1
	June '89	May '89	Apr.'89	June '88	
Netherlands	103.8	105.0	106.8	101.2	+2.6
France	112.8	112.0	112.9	107.8	+4.8

Source: (except US) Eurostat

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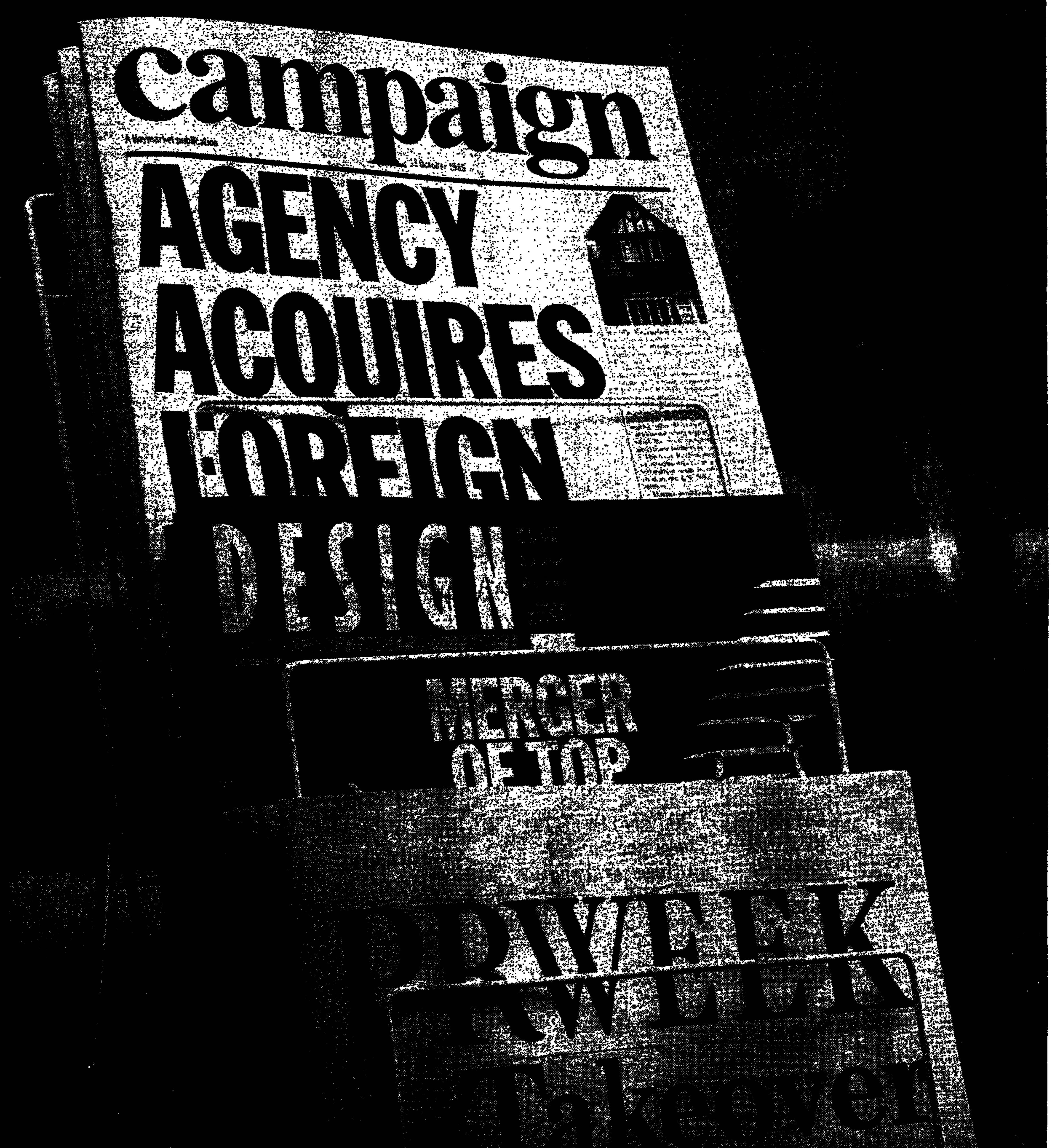

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CHASE

UK NEWS

Brussels consultation plan attacked

By John Gapper, Labour Editor

A DETAILED attack on European Commission proposals for statutory worker consultation was launched yesterday by the Government following a visit to Britain by Ms Vasso Papandreou, EC Social Affairs Commissioner.

Mr Norman Fowler, the Employment Secretary, said proposals sought by the Commission in Brussels for worker participation models within a European Company Statute would damage the "flexibility and diversity" that characterised employee involvement in Britain

Mr Fowler, however, emphasised the Government's support for voluntary worker participation.

Ms Papandreou stressed last week that existing practice in European Community countries could preclude the need for legislation to enforce the Social Charter.

Mr Fowler said encouraging employee involvement remained a priority. Tax reliefs to stimulate financial participation such as employee share ownership and profit-realted pay had been in included in nine out of the last 10 budgets.

He was launching a booklet detailing employee participation at 26 British companies, which includes an extended rebuttal of the need for statutory worker participation models such as the West German system of co-determination,

The booklet argues that compulsion along the lines of the European Company Statute or the Verdeling directive on worker consultation is not conducive to the development of wholehearted employee participation.

It lists a series of disadvantages to statutory enforcement of employee involvement, including:

- Legislation would divert companies' energies from "irrelevant new statutory requirements" instead of developing practices which suit them best.
- Compulsory co-determination could have a damaging effect on management decision-making. Workers' representatives would be able to block vital changes and destroy jobs.
- Important decisions could be held up and sometimes overturned, leading managers and board members to choose not the best course, but "the line of least resistance."
- Consultation machinery could push direct communication between managers and workers into second place, and middle managers and supervisors might be less well-informed.

Among the practices cited in the booklet – called People and Companies – are team briefing at the French car manufacturer Peugeot Talbot, an employee share ownership plan at Roadchef and pofit-sharing and share ownership at the UK food retailer J Sainsbury.

Cambridge lengthens courses

By David Thomas, Education Correspondent

CAMBRIDGE University is planning to lengthen undergraduate engineering courses to four years because it is concerned by the refusal of continental European employers to recognise the traditional three-year British engineering degree.

Four-year engineering degrees will also allow Cambridge to increase the amount of time devoted to areas such as computing and management, which is likely to be welcomed by employers of graduate engineers.

Professor John Carroll, who has drawn up the proposal, said that a three-year engineering qualification was not recognised by some employers in continental Europe where five- and six-year engineering degrees are more common.

Employers, however, may be concerned about the impact of Cambridge's proposal on their student sponsorship costs and also on the overall numbers of graduate engineers, who are already in very short supply.

Cambridge is planning to cut its annual intake of engineering students from 350 to 270, because it does not foresee extra resources to fund the transition to the four-year degree.

There has been a steady trickle of universities converting to four-year engineering degrees.

The Engineering Council has argued that a four-year course would be appropriate for a minority of engineering students as the university is concerned about the declining standards of mathematics in schools.

The proposed move by Cambridge, which has one of the largest and most prestigious engineering departments in the country, is likely to reopen interest in the issue.

Cambridge's engineering department plans to present a proposal to the university authorities for a four-year course starting in 1992.

Prof Carroll also said that while the quality of students was still very high, many of them particularly from state schools no longer study maths to a sufficient level to be able to complete satisfactorily an engineering degree in three years.

Under the plan, some Cambridge students could still leave after studying engineering for three years, but the great majority would stay on for four, possibly leading to the awarding of a M. Eng. degree.

Mixed vote expected in engineering strike ballot

By Michael Smith, Labour Staff

MEMBERS OF the largest engineering union at the Cheltenham plant of Smiths Industries have voted in favour of striking for a reduced working week, Mr Pat Rawlings, the chairman of the factory's shop stewards said yesterday.

Mr Rawlings, however, said he thought in spite of the "yes" vote among AEU members, majorities in some of the other unions at the site were against striking.

The vote results at Smiths and six other engineering plants throughout Britain will be announced by the Confederation of Shipbuilding and Engineering Unions (CSEU) this afternoon.

It is likely that a mixed pattern will be the outcome in most of the seven, with support strongest among manual workers.

Union leaders expect the best results at British Aerospace's plants at Preston and Chester and at Rolls-Royce's factory in Glasgow.

They are less confident about the BAe plant in Kingston-on-Thames and the Rolls-Royce factory in Coventry. Support could be even thinner at Smiths' Cheltenham plant and at an NEI-Parsons factory on Tyneside.

NEI-Parsons management has waged a particularly strong campaign against striking, through direct appeals to the workforce and advertisements in the local press.

The workforce is concerned about striking so soon after being taken over by Rolls-Royce earlier this year and, in an area of high unemployment, the company's message about the possibilities of jobs being threatened by a strike has hit home.

The reduction of the working week is the pet project of Mr Bill Jordan, president of the AEU engineering union.

For the last six months he and other union leaders have been touring the country to drum up support for an issue which, at least at the start, had only lukewarm support

In Brief

Ambulance men attack plan to use police vans

AMBULANCE management is being accused of "putting lives at risk" as London crews prepare to begin a work-to-rule from tomorrow.

The health unions are protesting at plans to turn police vans into emergency ambulances as they step up industrial action in a pay dispute.

Travel staff prize

THOMAS Cook, the travel agency, is to award a gift to each member of staff who makes a suggestion for improving business efficiency even if the idea is not practical, under a relaunched staff suggestion scheme.

The company has this month revised its scheme, founded in the 1940s, in order to raise the participation rate from the previous level of about 600 suggestions a year among its 6,800 staff to 1,300 a year.

Company pay

TWO thirds of UK companies have raised basic pay and more than a third have introduced performance-related pay schemes in the past two years in order to tackle growing difficulties in recruiting and retaining staff, according to a survey.

Royal programme

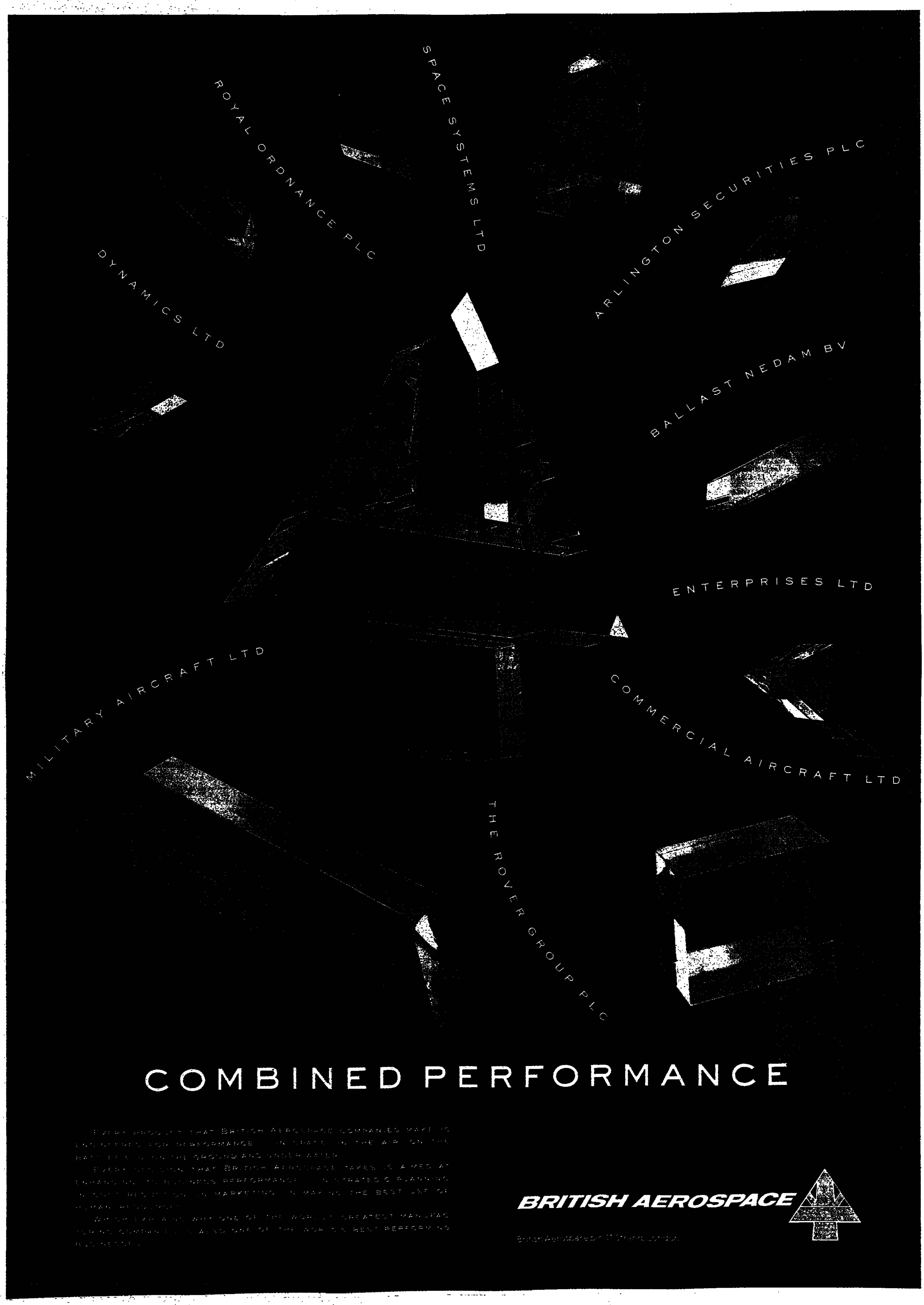
THE Prince of Wales is to write and present a TV documentary on the environment. It will be screened in 1990 as part of a One World project in which European broadcasting stations collaborate on programmes about global problems.

Fire bombs defused

THREE fire bombs were defused by London police yesterday after a tip-off from a man claiming to represent an extreme Welsh nationalist group.

Air control offer

AIR traffic controllers yesterday offered to work up to 15 extra days each over the next year to relieve difficulties with the service because of staff shortages.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UK NEWS

Policy of high interest rates hurts a Tory heartland

Christian Tyler finds that the rising cost of borrowing has hit many residents of Lewes in Sussex

BETWEEN the photographs of houses for sale, plastered all over the estate agents' windows, pallid young clerks could be seen lounging at empty desks. It was the only sign in the capital of Tory Sussex that anything was wrong with the British economy.

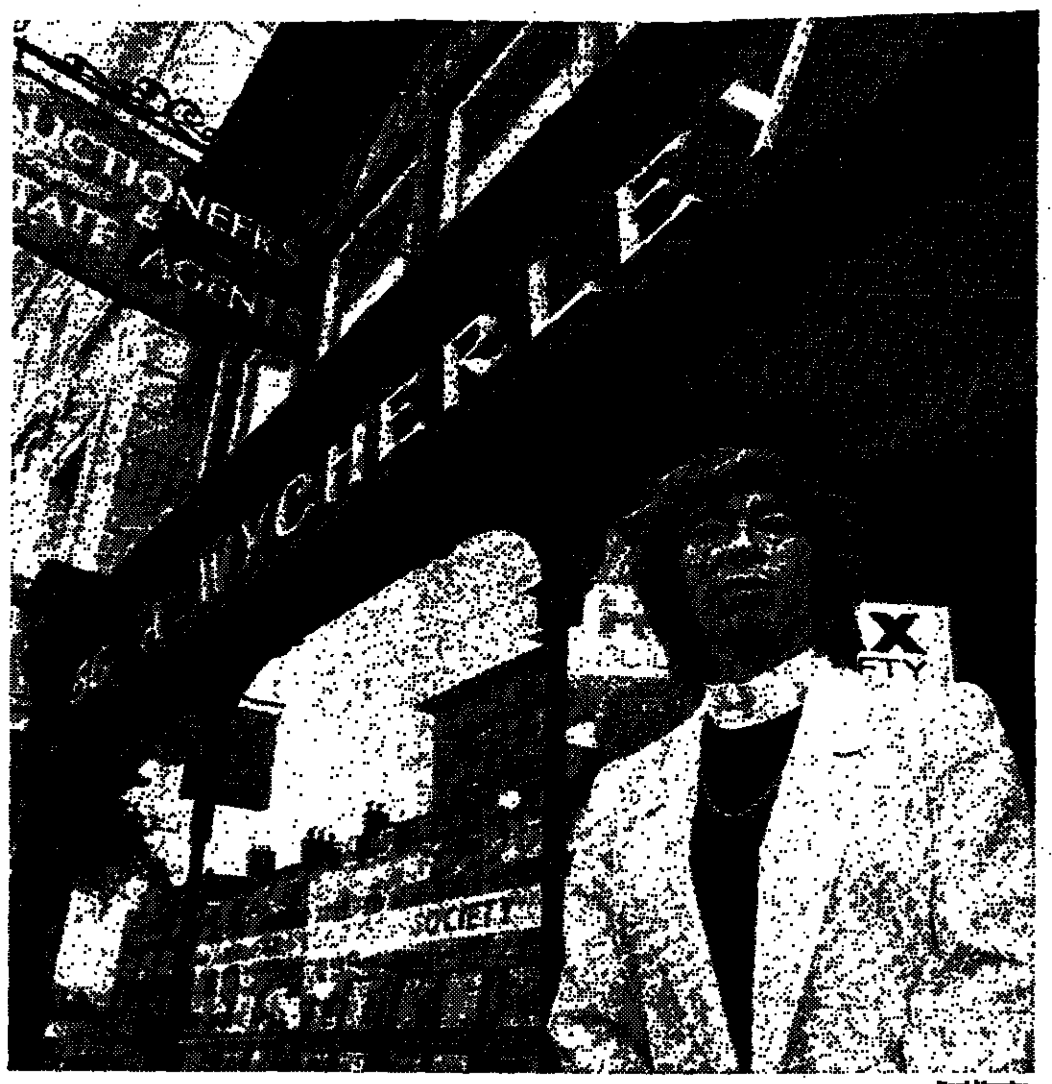
The ancient market town of Lewes is just over an hour by train from the metropolis but it is light years away from the feverish world of the Stock Exchange and money markets. Its inhabitants remain unmoved by exotic controversies about interest rate management or the timing of Britain's EMS membership. The Chancellor's speech at the Mansion House before the weekend left them less than agog. They were more interested in the site of the new tip, the route of the by-pass or the news from California.

Nevertheless, many Leweesians are being hurt by high lending rates – a few quite severely. They may not like it, but they will put up with it. Besides, for every young couple in an £80,000 terraced house struggling on the interest-rate escalator, there is a retired couple planning, on their swelling deposit account, a holiday to the Far East.

So, unless things get very much worse the Conservative Party can go on pulling the lever that has returned a Tory MP to Westminster for as long as anyone can remember. As Mr Guy Reaks, leather industry consultant and a vice-chairman of the constituency association, confessed: "The trouble with the Conservatives in Lewes is they're not interested in politics."

Lewes High Street is the sort of place to go if you want designer tea-cosies, hand-thrown pots, ruched curtains, wicker furniture and first editions. However, the town is socially more mixed than its castellated charm and Home Counties gentility suggest.

The local council is not Conservative-controlled but has a Liberal Democrat majority. The town was often Labour before it was merged into the district. Today there is a growing fringe of bearded academics from Sussex University and Brighton Polytechnic. The really rich mainly live in the villages round about. As a result the effect of the interest rate squeeze on consumer spending is very mixed.



Paul Murphy

Estate agent Anne Wycherley: so many properties there is not room for them all in the window

A gallery owner said that antiques were selling slowly but modern paintings, seen as a good investment, continued to sell well. The head of a jewellery company beside the River Ouse said he had not detected any change. The independent travel agent told the same story but wondered if things would change next year.

One of the antiquarian booksellers, Mr Andrew Cumming, said he was more worried by exchange rates hurting his foreign customers than by UK interest rates. Besides, he had cleared his overdraft years ago as a matter of deliberate policy.

On the other hand, Ms Belinda Burton, who runs a mid-price fashion boutique, said she was feeling the pinch for the first time ever. Her sales had been markedly down over the past few weeks – although unseasonably warm weather might be partly to blame.

Earlier this year she took out a large business overdraft and her payments were now "absolutely ridiculous." She said: "I am worried about spending money on books and other things I don't actually need. I imagine November could be better, Christmas will be the last fling and January, February and March could be really dire. We shall survive, but I think a lot of people will suffer."

Mr Peter Bailey, one of the town's bigger entrepreneurs, is forecasting worse than that: a full-blown recession. He said the base rate increase this month to 15 per cent had been the last straw and had had an instant effect on his customers' spending. He added: "I think the Conservative Government are going to do themselves a lot of damage."

Mr Bailey is chairman of the group that owns ClothKits, a manufacturer of trendy clothes for women and children, popular with middle-class mothers and known well outside Lewes. His customers are the sort of people who have big Peugeot and Volvo cars, big mortgages and send their children to private schools.

"These are the people who have been hit the hardest," he said, "but I think the economy generally is going to suffer quite heavily and there will be an awful lot of people caught with their trousers all the way down."

It is the invisible inessentials that take the strain first, according to Mr Ted York, who owns the High Street brokers Berkeley Alexander. He said that more insurance premium cheques than usual had been bouncing in recent weeks and business had gone "suddenly very quiet." He thought people were delaying or failing to renew house contents insurance; some would be tempted to trade their comprehensive car insurance down to third-party cover. Life insurance might be the next thing to go.

He has stopped advertising home income plans to the elderly. "When we spelt out what it means, people just didn't want to do it: the roll-up of interest rates is frightening." At times like the present, he said, people would do better with old-fangled instruments such as annuities.

Mr York normally arranges 10 mortgages a month; at present he is doing three. That is no surprise; the house market has been dead for months. However, it is odd that the local building society reports no rise in payment arrears. The Sussex County Building Society said that problem arrears – that is accounts three months or more overdue – had increased by only a fraction of 1 per cent in the year to June.

According to Mr Walter Eveling, a senior manager of the society, the mortgage lender is not the first but the last person to know of his customer's financial problems. It seems that people will face anything rather than default on their home loan. It remains to be seen what happens when the society's 13.65 per cent mortgage rate goes up at the end of this month.

Local estate agents have slashed tens of thousands of pounds off the prices of houses but the market is at a crawl. The only houses changing hands seem to be those belonging to people whose jobs have forced them to move, who have taken on bridging loans, or who have died.

Miss Anne Wycherley, sitting in the beamed and panelled office of her family's old-established estate agency, cheerfully pulled out a list of properties for sale. She said: "There are six sides of paper here. A year ago it was only one. We have got so many properties I can't get them all in the window – and we've got the biggest window in Lewes."

The office of the Halifax Building Society has seen its turnover of property transactions drop 30 per cent and prices by 10-20 per cent. The manager said it would be the middle of 1991 before prices started to rise again. Another of the dozen estate agencies along the High Street, the Abbey National's "Cornerstone" closed suddenly in the summer. Everyone is waiting to see who falls next.

In a loft of the former Star brewery just off the High Street, Mr Michael Cooper is restoring pictures on an old easel. He is a partner in a venture that converted the brewery into 20 arts and crafts "units" and turned its £170,000 overdraft into a business development loan a few months ago. "We got it at a fixed rate of 15.5 per cent because I suspected that things would go up," Mr Cooper said. "I thought it best to get into a bolthole and pull the hatches down."

There are borrowers – more numerous than many think – who are quite oblivious to interest rates. Mr Peter Hall, a winemaker, grows six acres of Seyval Blanc grapes at Breaky Bottom farm, a magical place hidden in a fold of the downs. His must be the most precarious business in England.

However, last week, to the bellow of symphonic music in the old stone barn, he was bringing in a bumper harvest of the crop that has kept him barely afloat for six years. He said that this year he would beat his 1983 record of 20,000 bottles.

Mr Hall loves wine and winemaking. He is not very excited by money. As he said: "I'm not interested in getting the last penny. I'm not even very interested in the first. I don't know what the current base rate is. What I do know is there's bugger all I can do about it."

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Abortion policy may be forced on Government

By Ralph Atkins

A UNIQUE constitutional dilemma could force the Government towards an official policy on abortion in the next parliamentary session.

A Government-sponsored bill on embryo research, expected to be announced at the state opening of Parliament on November 21, is almost certain to be used by MPs as a vehicle for re-opening the abortion debate.

Such a move would leave the Government having to decide on procedure for debating the subject – and thereby giving ministers an unprecedented role in influencing any legislative changes.

Many ministers, including Mrs Margaret Thatcher, are in favour of reducing the maximum period of pregnancy during which an abortion can be carried out from 28 weeks to 24 weeks.

There is also a substantial lobby among MPs for a reduction to 18 weeks.

Officials yesterday denied that the Government would set out a specific policy. In the past, abortion changes have been introduced in private members bills with MPs voting according to their conscience, rather than following a party whip.

MPs will be allowed a free vote on any proposed changes attached to the expected bill, which will be based on a report by Dame Mary Warnock into embryo research.

Mr David Mellor, the health minister, said: "It is certainly not a question of the Government taking any formal view and trying to whip people in behind that view."

However, government business managers will have a strong influence, in conjunction with the other parties, about the amendments on which MPs are able to vote.

Ad-hoc meetings between health and legal ministers are believed to have already taken place but no formal decision has been taken.

The Government may draft its own amendment for debate or seize on one introduced by a backbencher.

Universities link up for efficiency investigation

By David Thomas, *Education Correspondent*

FOUR Midlands universities have joined forces in appointing a group of management consultants to advise on efficiency.

The initiative, the first of its kind in UK higher education, reflects the pressure on universities to maximise their resources in the face of budget squeezing from the Government.

Birmingham, Leicester, Loughborough and Warwick universities have engaged the PA Consulting Group to carry out efficiency audits of services such as residences, libraries, maintenance and catering.

Each year for the next three years, PA will conduct a joint study of one area across all four universities, as well as a study specific to each.

Mr Michael Shattock, registrar of Warwick University, said that the four universities were able to afford a larger study than any on its own. He was confident they would more than recoup the cost through efficiency gains.

Hattersley assurance on credit controls

By Ralph Atkins

MR Roy Hattersley, Labour's deputy leader, yesterday moved to clear confusion about the party's policy on credit controls.

He said a Labour government would not introduce regulations that would penalise families moving to large houses. However, he hinted that the party would favour greater control of bank deposits in an effort to allow lower interest rates.

His remarks clashed with claims by Mr Bryan Gould, Labour's trade and industry spokesman, that Labour would seek to rein back inflationary credit growth with strict controls on new mortgages. The proposed rules aimed to hit home-buyers trading up but first-time buyers would have special conditions.

Mr Hattersley, speaking on London Weekend Television, said that Mr Gould had been misinterpreted. There were significant problems from mortgage lending leaking into other areas of consumption, such as cars, but technical difficulties in introducing restrictions.

He said: "Both parties have said that is a problem, neither has got a solution for how to deal with it. . . There is no way in which we are going to penalise a family which wishes to buy a larger house."

Mr Hattersley's comments, which appeared designed to soothe divisions within the party, came at the end of a week in which Labour has strived to boost its economic credentials both in the UK and in Europe. An Observer/Harris opinion poll published at the weekend put Labour 10 points ahead of the Conservatives.

Mr Hattersley said mortgages were only part of the credit market. He suggested a wider control of bank deposits, as in France, would mean lower interest rates than otherwise.

LAW SOCIETY ANNUAL CONFERENCE — REPORTS BY RAYMOND HUGHES

Institutions accused over estate agencies

FINANCIAL INSTITUTIONS involved in estate agencies were accused at the weekend of having lost sight of their obligations to customers.

It has happened on a significant scale, said Mr David Ward, president of the Law Society, in his closing speech to the society's conference in Harrogate on Saturday.

The message from all over the country was that the institutions carrying out estate agency work had been doing things they should not have been doing.

He said: "It may be that employees have not been observing the rules of their own institutions, but it has been a scandal in some places, the extent to which the interests of the vendor for whom they have been supposed to be acting have been ignored."

His main hesitation about the Government's proposals for opening up the conveyancing field to financial institutions was the idea that a solicitor employed by an institution should have a divided responsibility to his employer and his employer's customer.

David Ward: 'It has been a scandal in some places'

Mr Ward said: "I know very well that employed lawyers in commerce and industry, civil service and local government have shown a great deal of independence in the way they have conducted their professional duties. But they have a single client, they are not faced with this particular conflict. I don't think the Government's proposals overcome it and that is a reason why they should look at it very carefully."

The Society's hesitation about the conveyancing proposals did not arise from fears of overall job losses for solicitors and their staff, Mr Ward said. He was sure that there would be many attractive posts available in conveyancing departments and that a lot of solicitors would be far better off working for those departments.

Also, he said, it would be a very difficult and divisive for the profession to get to grips with tendering for franchises when financial institutions wished to offer conveyancing without full-time departments.

Mr Ward said that, while solicitors should try to be less dependent on conveyancing, it had to be recognised that it was because of their non-contentious work – conveyancing and probate – that they were able to offer a network of 10,000 firms with 17,000 offices up and down the country.

He had no doubt that solicitors would be able to compete with the institutions – if there were fair competition. He said: "I think their prices, once they have got into the market, will be higher than ours – and one of the things we have achieved is a very efficient system for exchange of contracts and transmission of completion moneys, billions of pounds in chains up and down the country."

The vital thing about that system was that it was based on trust between members of the same profession.

In a final rallying call to his members, Mr Ward said that he was optimistic about the conveyancing issue although he could still see storm clouds ahead. "I still think that the majority of conveyancing matters will stay with solicitors because of the service they offer and because if they are properly costed we can do them more cheaply than the institutions."

Market 'must dictate practices'

SOLICITORS should stop getting worked up about the prospect of multi-disciplinary partnerships between members of different professions, Sir Mark Weinberg, chairman of Allied Dunbar Assurance and deputy chairman of the Securities and Investment Board, told the conference.

He said it was difficult for an outsider, such as himself, to see why the subject stirred up so much emotion among solicitors. "To this outsider it seems that it should be for the market to decide whether there is a demand for such practices."

If there were a demand it might or might not have implications for the structure of existing practices. "But it must be advantageous to individual solicitors that there are additional choices open to him as to the form in which he practices," he said.

Sir Mark also urged solicitors to adapt positively to the breaking down of institutional barriers.

People no longer accepted that to get a particular service they had to go to the particular type of institution or firm established to provide just that service, he said.

Increasingly they would go to whatever outlet would provide that service most conveniently to their trust and satisfaction.

The important thing was to embrace that fact positively "rather than accepting it only in the particular respects that suit the interests of your profession as it is presently structured."

However, that did not mean that because doors might open for solicitors to provide a wide range of services it would be sensible for them to attempt to do so. They should concentrate on their core business.

Sir Mark suggested that the brightest feature for a solicitor was increasingly to be regarded as a client's broad adviser – the person who could see the client and their financial and business affairs as a whole and advise them accordingly.

Mr Jock Worsley, chairman of The Financial Training Company and past president of the Institute of Chartered Accountants in England and Wales, said he hoped that the Law Society would not indefinitely bar solicitors from being in partnership with accountants.

He added: "It would be a very considerable blow to our members who want to be in a position to offer comprehensive services to clients."

Court plan for solicitors 'misguided'

A LEADING barrister has attacked a suggestion by Lord Donaldson, the Master of the Rolls, that there should be a rule that solicitors who have prepared cases should not be allowed to argue them in the High Court.

The suggestion – seen as perpetuating barristers' monoploy of much advocacy work in the higher courts – was misguided, Sir William Goodhart, QC, told the conference.

"It seems to be based on the proposition that the more you know about a case the less suitable you are to present it."

The decision whether to bring in a separate lawyer as advocate should not be a matter for rules but should be left to the judgment of those handling the case, Sir William said.

Winterthur plans £35m insurance investment

By Patrick Cockburn

THE Swiss insurance company Winterthur is to invest £35m in its subsidiary Churchill Insurance, the UK motor insurance company which started trading in June.

Winterthur, the eighth largest insurance company in Europe, which already insures 2m motorists on the Continent, says it aims to make Churchill the leading private car insurance company in the UK in the 1990s.

Churchill is a direct response writer of motor insurance which says it can undercut traditional motor insurance costs by 5 to 10 per cent. New direct writers of motor insurance are offering low prices to gain market share so putting pressure on longer established insurers.

Mr Martin Long, managing director of Churchill, says that by heavy investment in computers and by not using middlemen the acquisition and renewal of new business will absorb only 15 per cent of premium income or half the expenses of traditional insurance companies.

Company formed to invest in Hungary

JOHN GOVETT, the London fund management company, is forming a company to invest in Hungarian equities and related securities. The company, to be known as the Hungarian Investment Company, expects to attract at least $50m of institutional funds, and will seek a listing on the London stock exchange.

The core investors in the fund are expected to be a syndicate formed by stockbrokers Douglas le Mare, including Fidelity, Gartmore, Touche Remnant and the Trustee Savings Bank. It will be managed by John Govett.

CWS lifts half-year sales by 7.3%

THE Co-operative Wholesale Society, the retailer, food manufacturer and Britain's biggest farmer, has announced a 7.3 per cent rise in sales to £1.2bn in the six months to July 1. Trading profits increased from £12m to £14.2m and profits, after investment income and interest payments, rose by more than a quarter to £8.3m.

Mr Lennox Fyfe, board chairman, said the improvement continued the CWS's progress since the business was restructured three years ago.

Kleinwort directors to join BZW

TWO directors from Kleinwort Benson are to join Barclays de Zoete Wedd, the investment banking arm of Barclays Bank, to head its corporate finance division.

Mr Graham Pimlott will become chief executive of the division and Mr Callum McCarthy will be his deputy.

Heavens above! City takes a dim view of stargazer

By Michael Thompson-Noel

IT HAS been a week of shakes, quakes, portents and omens – a good week, in short, for pagan fundamentalists such as Mr *Daniel Pallant*, the Weekend FT's financial astrologer, who predicted with breathtaking aplomb this autumn's upheavals in the markets.

Mr Pallant is no Johnny-come-lately. Last December, writing in the Weekend FT, he argued that the outlook for UK equity prices in 1989 was "very bearish," with the key dates in the bear slide being August 25 and September 13. As it was foretold, so it came to pass: the UK market peaking on September 8 and starting to decline from September 12.

From here on in, says Mr Pallant, things will get stickier and stickier, with the UK's FT-SE 100 index whooshing to below 1,700 and heading towards 1,000.

"The real reason for the major bear slide," Mr Pallant said yesterday, "is the Saturn-Neptune conjunction and its opposition to Jupiter. Things are fairly catastrophically heavy in any way you look at it – the economy, property prices, people welshing on their debts."

Reeling and whey-faced after my conversation with Mr Pallant, I rang prominent figures in the City of London to ask whether astrological forecasting was on its way in. My reception was entirely negative, although Mr Pallant says numerous institutions buy his forecasts and pay him retainers – in conditions of strictest secrecy.

"Is this a joke?" snapped one banker when asked if his firm read the tea-leaves or scanned the heavens. "Do you believe in astrology? My wife does. So there we are."

"Oh no," groaned another, as though he had just been stabbed. "No, no, no, no. Are you utterly, utterly serious?"

Yet Mr Pallant reports something of a bull market for his inter-planetary services. He has just bought a posh new computer to help him scrutinise the signs more closely.

Yesterday, financial types were clearly ruffled and shocked at being questioned about their own attitudes to financial astrology.

Mr Peter Dugdale, managing director of Guardian Royal Exchange, said: "I'm basically a cynic, and probably a loser as a result. I look at my own horoscope occasionally. Possibly our underwriting department would benefit in some way from astrology."

At Warburgs, Mr Simon Lewis, said: "As a house we don't use it as a way of calling the market. We're too busy looking at our screens."

Smith New Court said: "I can't tell you about all 1,100 employees, but as a general rule we don't dabble in it. Anyway, by Thursday the market had bounded back quite sharply. Was that in the stars as well?"

Mr Pallant claims his forecasts are based on probability curves. "What we detect are periods of bullishness or bearishness lasting from a couple of weeks to a matter of months with a 75 to 80 per cent success probability," he said.

As well as producing long-term planetary coefficients, he claimed to be able to study short-term lunar effects on the heaving earthly mass of buyers and sellers and to package this information in graph form.

Although "Daniel Pallant" sounds a bit like a smooth-talking, bouffant-crested, fluffy-suited seer on one of Mr Rupert Murdoch's satellite channels – "This is a good week for Pisceans to forge new alliances at work" – he does actually exist. Some time ago he visited me at Bracken House, near St Paul's, the FT's home until it transferred its world headquarters to the theatrical environs of Southwark.

I discovered that Mr Pallant – mid-fifties, bookish, a former student of maths and physics – was easily capable of surviving hugely skilled questioning and forensic interrogation.

In a physical environment, he said, it was "inconceivable that even a tiny scrap of DNA shouldn't be related to much larger physical processes like planetary motions. We are cosmically sensitive, at least at the physical level. I take the view that there's less free will about our lives than people like to believe."

It was all very pre-millennial.

BR reluctant over Channel tunnel bill

By Kevin Brown

BRITISH RAIL is expected to decide soon whether to go ahead with a private member's bill seeking parliamentary permission for its proposed high-speed line from London to the Channel Tunnel.

BR executives have until November 27 to table the bill but are reluctant to proceed unless full financial agreement is reached with the Government and the private sector.

BR is still discussing the proposed link with two consortia, led by Trafalgar House and Peninsular and Oriental Steam Navigation.

However the plans are threatened by a funding gap of about £1bn because environmental improvements have increased the estimated cost to around £3.5bn, plus £1.1bn for rolling stock.

Both consortia say the project will not be viable unless the Government provides a subsidy of about £1bn, or costs can be cut by as much.

Three options are being discussed by BR executives:

- Abandon the bill and either seek parliamentary permission to start again in the spring or wait until next November.
- Keep up pressure on the Government to plug the funding gap.
- Accept that plans for a tunnel under London, made on environmental grounds, should be abandoned. This would cut the cost by about £1bn but would mean having to use existing tracks to reach the main Channel tunnel London terminal at Waterloo.

Orbitel launches pocketphones market challenge

By Terry Dodsworth

ANOTHER UK manufacturer has entered the battle for the new pocketphone market, with a range of products aimed at all four telepoint licensees.

The announcement, from Orbitel mobile communications, a joint venture company set up by the Racal and Plessey electronics groups, comes within days of a similar launch by GPT, the largest UK telecommunications equipment company.

Both companies are marketing pocketphone handsets which comply with common industrial standards and can therefore be used on any of the four telepoint systems which have been licensed by the Government.

GPT, however, is initially supplying the BYPS consortium – of Barclays Bank, Philips and Shell – while Orbitel will be making its products generally available through two telephone distribution companies – Nimans and National Telephone Supply.

The telepoint system is based on small cordless handsets which can make outward calls only and which connect with the public telephone network through base stations operated by a radio link.

The companies are hoping the service will take off as a cheap alternative to car and portable phones presently available on cullular networks. The new sets are small enough to be carried in a pocket, and can be also used in the home like normal cordless phones. They will initially cost between £150 and £200.

The two product launches bring large, indigenous British companies into the mobile telephone industry for the first time. So far UK manufacturers have largely missed out on the cellular telephone industry, one of the most rapidly expanding markets in the world over the last few years. Most of the cellular phone equipment sold in Britain is US and Japanese made, although a significant proportion of this is now produced in UK subsidiaries of these foreign groups.

UK companies, however, are taking the lead in manufacturing for the telepoint system.

Growth in demand for redundancy counselling

By Michael Skapinker

A MORI poll has found that nearly three-quarters of Britain's large companies have used outplacement consultants – firms which counsel redundant managers and help them find new jobs.

Five years ago a similar survey found that only 48 per cent had used outplacement consultants.

The poll of 500 companies, commissioned by outplacement consultants Pauline Hyde & Associates, also found that there had been an increase in the frequency with which organisations engaged the services of such consultants.

Thirty per cent of the companies surveyed said they had used outplacement consultants four times a year or more, compared with 15 per cent in 1984.

Of those companies which had used outplacement consultants, 56 per cent said that outplacement services had also been offered to supervisors, clerical and hourly-paid employees when they had been made redundant.

Employees at this level were counselled in groups. Managers, though, usually received counselling on a one-to-one basis.

However, of those companies which said they had made outplacement services available to junior staff, only 49 per cent said they had actually used an outplacement firm to deal with redundant employees at this level.

Companies were also asked whether they approved of the idea of including a provision in executives' contracts promising them outplacement services if they were made redundant.

Clauses of this sort are increasingly common in the United States.

Of the UK companies surveyed, 69 per cent said they thought it was a poor idea, 25 per cent said it was a good idea and six per cent had no opinion.

Most of the executives responding to the survey – 68 per cent – said they would not want such a provision in their own contract of employment.

Merger mania comes under the microscope

David Waller on an inquiry into the impact of takeovers on jobs and society

THE UK has enjoyed something of a takeover boom in recent years. In 1988 alone, the value of acquisitions and mergers amounted to £22.1bn, more than six times the previous peak in 1972.

This merger mania has undoubtedly swollen the coffers of institutional investors and furnished big fees for the merchant banking community but has it done any good for society at large?

To ask such a question amid the heat of a takeover battle would be considered the height of bad form. The debate is supposed to confine itself to a clinical assessment of profits records and dividend forecast. It would be unprofessional for a management team to base its defence on non-financial criteria such as the impact of a bid on jobs or public interest at large.

Cardboard cut-out Quality Street characters join a protest by Rowntree workers last year against the Nestlé takeover

One company which did make such an appeal was Rowntree, the York-based chocolate manufacturer bought by Nestlé in a £2.55bn bid battle last summer.

It was taken over in spite of the efforts of the Joseph Rowntree Memorial Trust – then the company's largest shareholder – to haul the arguments into a higher sphere where morality and public good were to be considered more important than a squabble over earnings per share.

Last week, the trust – founded by one of York's early chocolate entrepreneurs – decided to reopen the debate with the announcement that it is sponsoring a £170,000 inquiry into the broader issues raised by corporate takeover in the UK. This will be headed by Professor Sir Alan Peacock, former chairman of the Peacock Committee into the future of British broadcasting and now executive director of the David Hume Institute, a think-tank based in Scotland.

A focal point of the inquiry will be the Rowntree bid battle, which saw Jacobs Suchard and Nestlé conduct a public auction over the company, much to the delight of the stock market and much to the consternation of the City of York. However, the aim will be to range wider – looking at other bid battles, at merger policy in general and the longer term economic consequences of a takeover victory.

The results are likely to be provocative. The steering committee members include Sir Adrian Cadbury, the chocolate magnate who last summer urged a change in merger policy to block the Rowntree deal, and Sir Donald Barron, chairman of the trust and former chairman of Rowntree itself. It was he who got up at the Rowntree annual meeting – held on the day Nestlé launched its assault – and denounced the iniquities of the capital market.

"You hear about the company being 'in play' as if it were an inanimate object. It isn't one," he declared to tumultuous applause. "What about tradition? What about soul? What about people?"

This approach will probably be tempered by the presence on the steering committee of Mr Jeffrey Knight, retiring chief executive of the Stock Exchange and presumably not one to rock the takeover boat. However, Mr Graham Bannock, the economist and consultant who will be the programme's research director, is keen to be controversial.

"I see no reason why takeovers shouldn't be banned," he said last week, with his tongue only half in his cheek. "The argument that takeovers operate as a sort of market mechanism to get rid of management inefficiency is nonsense. What they illustrate is that there is no real competition in product markets. In making a takeover a big company is simply making sure that any nascent competition is squashed before it becomes a real threat."

In this context, he will be looking at companies which have grown by acquisition over a long period. GEC, which has recently gobbled up Plessey, will clearly come under the microscope.

When it announced the inquiry the trust said: "Typically companies are like trees, they take many years to grow but can be cut down in minutes." Has the UK's merger policy resulted in the economic equivalent of the Brazilian tropical rain forest, with imponderably dire consequences for the business environment?

Hard-bitten merchant bankers will probably dismiss the report with the thought that the Joseph Rowntree Memorial Trust has itself done very well out of the takeover game. At the time of the takeover it had 8m shares in the chocolate holding, the income from which had funded a variety of philanthropic projects for more than 80 years. The bid brought the trust an £88m windfall.

Toiletries market 'faces increased competition'

By Maggie Urry

COMPETITION between chemists, drugstores and grocery shops for the important toiletries market is intensifying, according to a report from Verdict Research, the retail research group.

The toiletries market was worth £2.2bn last year, with Boots, the leading chemist chain holding 25 per cent of the market. Drugstores have 16 per cent of the market and supermarkets have 27 per cent. Toiletries are the most important product category for drugstores and the second strongest area for chemists.

Verdict says: "The grocery trade has identified the toiletries market as having significant growth potential and is making a concerted effort to raise its share."

The report predicts that National Health Service prescription business will become more important to chemists. It currently accounts for 44 per cent of the £6bn of sales through chemists shops and Verdict predicts that this will grow to more than 50 per cent over the next five years.

Drugstores, which do not have pharmacies, have enjoyed a fast rate of growth in the 1980s, from a low base. Sales have quadrupled to £1bn, Verdict says, but this growth will slow down. Superdrug, part of the Kingfisher group, is thought to have 45.8 per cent of the drugstore market.

Verdict on Chemists and Drugstores. Verdict Research, 112 High Holborn, London WC1V 6JS. £495.

Exchange calls for tax changes

By Sara Webb

THE chairman of the Stock Exchange has called for tax changes to encourage private investors to invest directly in shares.

Mr Andrew Hugh Smith urged the Chancellor to abolish stamp duty on share transactions and to reform capital gains tax (CGT) in next year's Budget. He said this would improve the exchange's competitiveness in the run-up to the European single market.

He said that people with personal equity plans (PEPs), introduced in 1987 to encourage share ownership among private investors, should be given more flexibility so they could invest their money, which is limited to £4,800 a year, with more than one PEP fund manager each year.

Mr Hugh Smith said: "The percentage of shares held by private investors continues to fall and is now around 20 per cent." Such a trend "damages the Government's policy on share ownership and threatens to undermine the existing achievement of so many individuals owning a stake in quoted UK industry."

Since the Abbey National flotation in July, the Exchange estimates there are more than 12m private investors in the UK but just over half hold shares in only one company.

Mr Hugh Smith called for the simplification of CGT rules to encourage individuals to invest directly in shares rather than indirectly, for example through unit trusts. At present, investors may be liable to pay CGT on any share disposals but unit trust holders pay the tax only when they dispose of their units.

Mr Hugh Smith said the removal of this "disincentive for individuals to adjust their equity portfolio" would help to improve liquidity in the financial markets. He suggested that CGT should only be applied to investors who disposed of their shares and withdrew their money from the stock market and not to investors who re-invested in shares.

The Exchange has frequently called for the abolition of stamp duty on the grounds that it adversely affects trading volumes and market liquidity. It fears that, as other exchanges in Europe abolish their stamp duties or transfer taxes, London will provide a less attractive market place for trading in UK shares.

University team will help to end Shanghai pollution

By John Hunt, Environment Correspondent

BRADFORD University and UNIRAS, a Danish computer graphics company, have won a £500,000 contract to help clean up pollution in Shanghai harbour.

The university says the harbour poses one of the world's largest water pollution challenges. The pollution comes from sewage outlets and industry and has caused diseases in a highly populated area.

The contract has been awarded by the European Community's International Scientific Co-operation Secretariat, which establishes links between scientific communities in Europe and developing countries.

To tackle the problem the team will refine mathematical models which will simulate the flow of water, movement of sediment and water quality.

The European group will be led by Professor Roger Falconer of the department of civil engineering at Bradford University. It will work with staff from Chinese universities and research establishments and will use the simulations to decide how sewage and sediment should be dispersed at sea in order to minimise pollution.

The computer models will be tested in Britain before being applied in China.

Coastal pollution models will be tested at Poole Harbour, Dorset and at Bridlington, Yorkshire. Estuary tests will be carried out in the Humber.

CONSTRUCTION CONTRACTS

Upgrading office buildings

KYLE STEWART has begun work on contracts totalling £29.4m. A £16.5m management contract was awarded to Kyle Stewart by Lynton for the refurbishment and extension of Carriage Row, Eversholt Street, London NW1.

The project will provide 106,000 ft of office accommodation in three adjoining buildings which will either be let separately or to one tenant.

The Grade II listed building is 170 metres long and is believed to be the longest listed office facade in London. Work involves refurbishing this and the rooms immediately behind, while building an extension the length of the building at the rear.

All existing ceilings and plasterwork will be retained and refurbished where possible and the new-build will carry through the five metre high rooms. Part of the basement will be converted to a car park. Work is due for completion in December 1990.

The Hammerson Group has awarded a £6.5m contract to Kyle Stewart to undertake a mixed office, residential and refurbishment project in High Holborn, London.

The scheme comprises construction of a six-storey plus basement office building, a five-storey block of flats and the refurbishment of listed buildings at 16, 18 and 20 Barter Street, comprising retail units on the ground floor with basement storage and flats on the first and 2nd floors. Work has begun and is due for completion in March 1991.

Submarine base

PSA has let a £14m contract for the refurbishment and modernisation of berths at the Clyde submarine base, Faslane. The project will be undertaken by A MONK of Stirling, Scotland. Work will begin on site in May 1990.

Some 100 jobs will be created on site as a result of the work. This brings the number of jobs connected with the development at the Clyde submarine base to around 3,300.

The work involves the provision of extensive new services to submarine berths, together with the installation of a high voltage power services distribution network and the equipping of electrical sub-stations.

The works are part of the £720m construction programme being managed by PSA on behalf of the Ministry of Defence for the development of the Clyde submarine base at Faslane and RNAD Coulport. Work started in 1985 and is expected to be substantially completed in 1992.

£58m City offices development

LAING LONDON has been selected to carry out the £58m contract for a major office development in the City for Scottish Widows.

The project, which is being managed by Jones Lang Wootton, involves the construction of an eight-storey building on a recently cleared site bordered by 52-63 London Wall and 20-56 Copthall Avenue.

Designed by the Fitzroy Robinson Partnership, the scheme calls for a steel framed, stone clad building around central atria with shops at ground floor level. Parking will be provided at lower ground level along with a self-contained restaurant. Work is due for completion in August 1991.

Laing Yorkshire has won a £23.5m contract to build a ballistic missile early warning system at Fylingdales in North Yorkshire.

An American company, Raytheon, has awarded Laing the contract to build a pyramid structure which will replace the three "golf balls", the existing system which has become one of the area's most famous landmarks.

Raytheon is under contract with Air Force Systems Command's electronic systems division, Hanscom AFB, Massachusetts for the BMEWS upgrade.

A nine-storey pyramid will be built and it will house the latest early warning devices in a three-faced phased array radar facility.

Construction work will consist of a steel frame with electrical magnetic pulse shielding (EMP), metal cladding and concrete floors on metal decking. Over 40 per cent of the project value will be taken up with the sophisticated mechanical and electrical services the radar facility requires.

Work is expected to take two years to complete. Once it is fully installed and operating, the facility will be handed over to the RAF at Fylingdales.

New Tesco superstore for Slough

ALFRED McCALPINE MANAGEMENT has been awarded a design and construct contract worth £8.1m to build a superstore for Tesco at Slough on a site presently occupied by the Licenced Victuallers School. The school will be demolished but an historic clock will be preserved and incorporated into the structure of the superstore. Completion is due in September 1990.

Hospital work in the Channel Islands

HIGGS AND HILL MANAGEMENT CONTRACTING has been awarded two major contracts in the Channel Islands, worth a total of over £15m, for construction and refurbishment work at the main hospitals in Jersey and Guernsey. At Princess Elizabeth Hospital, the company is to construct the fourth phase for the States of Guernsey.

The two and three-storey development will provide a maternity unit, radiology unit, specialist wards, kitchen and dining room. Access roads and a car park together with extensive landscaping will also be provided. The main building will have a reinforced concrete frame with pad foundations and a steel roof structure clad in slate.

Higgs and Hill Management Contracting is to continue its long association with the Jersey General Hospital in St Helier, with the award of a refurbishment contract, which will provide new facilities.

This contract forms part of a continuous process of upgrading the hospital to match the standard of the new facilities. The majority of the work is within an old 18th century building with solid granite walls. It will create five wards together with specialised medical facilities including intensive care and coronary care wards and an endoscope unit.

Muslim cultural centre in Northolt

A Muslim cultural centre, Methodist chapel and Pan Am's building at Heathrow, head a list of contracts for TRY MANAGEMENT amounting to £14m.

The Masjid complex at Northolt is a new religious and cultural centre for the Dawoodi Bohra Muslim community. The £8.2m contract, which has just begun on site, involves construction of a place of worship, religious eating centre, kitchens, committee rooms, offices and two rows of terraced houses.

In the City of London, part of the Wesley's Chapel complex is to be refurbished, costing £1.3m. The committee room and social centre, both part of the listed complex, and the building between the manse and the chapel, are to undergo a complete face lift. Study bedrooms will be constructed above a basement conference centre.

Across London in Kensington, Try Management is to build offices and flats for sister company Try Mistletoe Properties. Kensington Cloisters, situated next to St Mary Abbot Church, comprises four office units over three storeys, with a separate small block of flats. The original buildings have been demolished to make way for the development designed in keeping with the surrounding architecture. Work will be completed next summer of 1990.

Pan Am's building at Heathrow is to be refurbished at a cost of £1.25m. A two-storey extension will be provided, while refurbishment of the continuously occupied Pan Am communications department is carried out.

£24m orders for Miller Construction

MILLER CONSTRUCTION has recently been awarded contracts worth in excess of £24m. The projects include an £11m civils award from Thames Water covering the construction of stage 2B of the London water ring main and a £2m infrastructure contract at Feltham in Middlesex.

Contracts from Beazer Developments include the construction of retail units at Dale End, Birmingham (value £2.17m), a £3m mixed development in Bear Street, London WC2, for sister company Miller Developments and fitouts for Safeway at Hitchin (value £1.5m) and Redcar (value £1.66m).

Refurbishment contracts include a seven-storey office block for the PSA in Bournemouth (value £1.77m).

Edinburgh courtroom facilities

Edinburgh's Grade "A"-listed Parliament House - seat of the Supreme Courts of Scotland since the 17th century - is to be extended for the Property Services Agency Scotland by M.J. GLEESON GROUP.

The £8.68m contract has been awarded to Gleeson's Scottish & North-Eastern construction division, based in Stirling. Sympathetically designed by the PSA, the extension is to be clad in stone by Gleeson and the roofing finished in lead and slate to harmonise with adjacent buildings in this conservation area.

Scheduled for completion in March 1991, the extension will provide three new courtrooms, office accommodation and additional car parking.

The site in the Cowgate - one of the oldest streets in Edinburgh's Old Town - slopes down so steeply from Parliament Square that the new courtrooms will actually be located at the top level of the five-storey complex.

Parliament House itself was the seat of the Scottish Parliament from 1640 until its dissolution in 1707.

Elsewhere in Edinburgh, Gleeson's Stirling office is currently carrying out extensive re-roofing, stonework reinstatement and refurbishment of the Royal Museum of Scotland at a cost of £2.1m and the £20m reconstruction of Dreghorn Barracks.

Railway bridge

As part of Lancashire County Council's Penwortham by-pass project, CEMENTATION PROJECTS , a member of the Trafalgar House Group, has been awarded a £6.25m contract by British Rail to construct an underbridge in Preston, Lancashire.

The bridge consists of three single span pre-tensioned concrete box superstructures with thrust-bored concrete abutments and will carry the west coast main line from Preston to Glasgow, the lines from Preston to Blackpool and other through and siding lines.

Cementation Mining, another Trafalgar House Company, has been awarded three contracts from British Coal for underground roadway construction.

At Maltby Colliery, Cementation will undertake a £3.6m contract for British Coal's South Yorkshire area. Work will entail driving underground roadways of 5 by 3.6 metres to a total length of up to 2,000 metres.

This new contract at Maltby Colliery follows the successful completion of the £20m Number 3 shaft sinking contract at Maltby carried out by Cementation Mining.

A second award for roadway work will be undertaken on a £800,000 contract at Agecroft Colliery for British Coal North West group. Under a 50-week project, Cementation will drive a single 550 metre roadway.

Cementation Mining has also won a £431,000 contract from British Coal, North Yorkshire area, to drive a new main roadway to replace one in poor condition.

MANAGEMENT

Industrial relations

A model to be imitated elsewhere in Europe

Jimmy Burns examines the experience of management/labour consensus at Man Roland, the West German printing machinery maker

It is lunchtime at the main Offenbach plant of Man Roland. A group of local trade unionists – Messrs Frank, Winkler, Enders, Reiss, and Wich – is entertaining a visiting foreign delegation of British university professors in the executive dining rooms.

There are some managers in the room also. On this occasion, though, the role of extolling the virtues of working for one of the world's biggest producers of printing machinery to this delegation of somewhat battle weary UK industrial relations experts has been left to the trade unionists.

That the university professors, while tucking into generous portions of campari, wine and venison, are taking copious notes is hardly surprising. *Mitbestimmung* – worker participation in management – has been well-known to West Germans for several decades.

But only recently has it begun to generate a much wider interest given the bubbling debate within the European Community over the issue of the social dimension.

At Man Roland worker participation is built into the corporate structure, but it falls well short of the "creeping marxism" that Britain's Prime Minister, Margaret Thatcher, fears lies behind the European Commission's proposed Social Charter.

The company's annual accounts begin not with the report of the chairman but of the *Aufsichtsrat*, the supervisory board, boldly claiming that over the past year the company has "continuously gained information on the situation of the company and on important questions of management."

It is the kind of phrase that might well send a chill down the spine of many a British manager. And yet as Claus Müller, personnel manager at Man Roland, explains, co-participation falls short of co-determination, even in Germany.

"The supervisory board has no major influence on changing or preventing major investment decisions," says Müller, whose company's list of customers ranges from the Soviet Communist Party (an order for printing presses was placed last year by the Party's youth newspaper) to media magnate, Rupert Murdoch.

Major policy decisions are still taken by an executive board of directors, on which sit bankers and major shareholders but no workers. Even on the 12-person supervisory board, workers are outnumbered by management representatives.

Nevertheless the workers are not without some clout. Industrial relations at Man Roland are conducted through a complex system of informal and formal relations between senior management and employee representatives.

Two members of the supervisory board, Heinz Frank and Klaus Schmidt, are also the deputy-chairman and chairman respectively of the works council. The council prides itself in having a considerable influence on a whole range of issues affecting the conditions of the staff.

Under German law, pay increases are negotiated separately from discussions over working practices and conditions on a regional and sector by sector basis between the employers association and the unions.

However, management has to discuss with the works council through its various committees issues like health and safety, overtime, the introduction of new machinery, and redundancies.

"At a regional and national level unions are very strong in wage negotiations and are prepared to take industrial action to get results...but here in the plant both sides are obliged by law to listen and recognise each other," says Heinz Frank, a a former turner who has served on the works council for 18 years.

Arguably, the legal context in which industrial relations in Germany is conducted is in striking contrast to those in Britain where a decade of anti-union legislation has in many instances provoked confrontation rather than dialogue.

At Man Roland, attempts by management to introduce a new data system for processing biographical and wage details of individual staff was delayed by two years because of works council objections that it might infringe on people's liberties.

The works council also forced the management to back away on plans to operate computer-controlled inking machines with flexible shifts involving semi-skilled as well as skilled staff.

Even though demographic change in Germany, as elsewhere in Europe, has provoked an acute shortage of skilled labour, the workers council insisted on this occasion that the proposed changes in working practices could endanger health and safety.

It is frictions such as these which lead Müller to concede that there are managers in Germany who believe that industrial relations are too restrictive and that "change is necessary."

He insists, however, that they are in a minority and he is not among them. "I agree that the works council can take up a lot of time and energy. But in the end I think it makes retraining easier and dismantles prejudicial resistance to new technology."

In some British companies change is often discussed with unions in periodic and acrimonious bursts during national pay negotiations. At Man Roland the human and commercial implications of new technology are the subject of regular discussions between a reduced group of works council representatives and senior managers.

The friction in industrial relations has been the exception rather than the rule. Although workers at Man-Roland joined the national strike in support of the 35-hour week in 1984, the plant itself has not had a localised dispute since 1966.

In the intervening period, the company, which employs over 7,000 people, has moved in leaps and bounds towards flexible higher quality production. It now claims to have an almost unparalleled range of products from small sheet-fed machines for commercial printers to three-storey Colorman presses.

Faced with examples of what workers councillors refer to as

major concessions by management, Müller points to change which has been possible by what he describes as a "large measure of give and take."

On the thorny issue of working time and the impact of new technology management and the works council have secured what both describe as their own "model agreement" aimed at maintaining the momentum of productivity.

New machines introduced at the plant now have a high degree of interchangeability between skilled and unskilled workers. The workforce on the whole has a 37-hour week written into contracts, although in reality the majority of employees work 38 hours in return for five extra days' holiday per annum. There is in addition an available "task-force" of highly-flexible workers prepared to work up to 40 hours or less than 37 depending on management needs.

After lunch at the Offenbach plant, the works council representatives act and sound like line managers as they take the university professors on a tour of the plant. Questions about pay and hours are skilfully deflected and met by bullish statements about the high standard of the work carried out by the computer-controlled machines and the enthusiastic involvement of the shop-floor in training.

Significantly the tension that exists at Man Roland appears to have less to do with management-employee relations than with employee-union relations.

In the West German metallurgical sector, nearly 90 per cent of members of workers councils are members of the metal workers union IG Metall. The union conducts regular trade union courses for works councillors in communication and negotiating skills, and appoints "liaison officers" to ensure that links remain strong between the council, the shop floor and central IG Metall.

And yet at Man-Roland, recent elections for the works council were thrown into considerable confusion when the shop floor refused to accept the official list put forward by IG Metall on the basis that it was not sufficiently representative.

Last week, Messrs Frank, Winkler, Enders, Reiss, and Wich – all militant members of IG Metall – insisted that they were the only members of the 23-man works council sufficiently "representative" of the rank and file to speak with the outside world.

Heinz Frank admits the union *apparatchiks* are now engaged in a "hectic battle" to ensure that they are re-elected. "It's going to take a lot of tough organising to keep union control."

The first real test is likely to come in the next few months when the relative stability of Man Roland's industrial relations could be threatened by a wider union battle over a further reduction to the working week.

Nevertheless management at the company remains reasonably confident that labour consensus will survive. Far from "creeping Marxism", Müller agrees with Frank that West German companies have a model of industrial relations that deserves to be imitated by the rest of Europe.

Says Müller: "I think perhaps the problem you have in England is that not enough thought has been given to the social model that is needed for capitalism to work."

UK 'reluctance' to think long term with robotics

So what is the market like in the UK for industrial robots? "It's on the floor," says Phil Binding, marketing manager for Unimation, Britain's sole mainstream robot producer.

The awful roller-coaster ride the UK's lonely player in robotics has endured over the past few years has been partly shaped by the rather feeble British market for automation equipment.

But it has had more to do with Unimation's own parenthood, absentee management and the pressures of competition which by the middle of last year had reduced the company to a bit-part component supplier with a staff of just 85.

It was with some relief for Unimation's British managers, therefore, when its parent, Westinghouse of the US, sold it last December to Stäubli, the Swiss textile machinery and robot maker.

Now, with an initial planned capital investment of £500,000 at its site in Telford, Shropshire, a bit of prodding of managers and some reorganisation, Unimation (renamed Stäubli-Unimation) is assembling complete robots again and its workforce is above 100.

"There is a much better feeling here now," says David Clayton, the 39-year-old general manager at Telford who has spent virtually his whole working life at Unimation.

Britain is a tiny supplier of robots. It does not have producers of the size of Asea Brown Boveri, Kuka of West Germany, Fanuc and Kawasaki of Japan. Unimation, a robot assembler not a manufacturer, is really the only mainstream UK brand name.

Clayton rolls his eyes and moans quietly when the chequered history of Unimation is broached.

The company was set up in the 1960s in the US by an engineering entrepreneur and produced the world's first robot – showing it on the Johnny Carson TV show in 1967.

The US company, Condec, bought Unimation and a British selling and design arm was set up in the early 1970s with co-operation from Guest Keen and Nettlefold.

GKN eventually backed out and, in 1981, the British Technology Group and the Department of Trade assisted in the setting up of an assembly operation to make in Telford the US-designed Puma series of robots. Condec got into difficulties and in 1982 Unimation was bought by Westinghouse.

Westinghouse subsequently discovered that the $108m it paid for Unimation was a high price. Nevertheless, it pressed ahead with production and development.

But Westinghouse's plans to develop a new electronic robot were scuppered when Japan's Kawasaki beat it to the draw with its own model. In 1987 Westinghouse shut the Connecticut plant, sold off its hydraulic robot business to Prab of the US and cut UK staff to 85.

Clayton remembers the Westinghouse days as very bureaucratic, a situation he feels "particularly harmful for a small company like ours."

Stäubli, which had been a distributor of Unimation robots, had started making its own robots in 1985. At the end of 1988 it had completed the purchase of the whole of Unimation for an undisclosed sum.

Since then, Telford has restarted assembly of complete robots. Clayton says the objective this year is to supply 340 robots from Telford as well as controllers for Stäubli's Swiss-made robots. Telford has supplied 312 robots so far this year and is heading for sales of about £10m. The long term aim is to be supplying a thousand robots a year by 1992.

Clayton says British managers have had plenty of ideas on how to improve Unimation and Stäubli is giving them the chance to put some of those into practice. That includes redesigning the shopfloor. The new Swiss owners have also been encouraging a tougher attitude with component suppliers on quality.

About 90 per cent of Stäubli-Unimation robots are exported from Telford. Managers at Telford say this is unlikely to undergo a significant shift because of what they see as chronic investment policies by large slices of British industry.

"In a typical British company there is a lot of reluctance to look at the issue of robotics," says Clayton. "How many jobs can you save is still, sadly, the main question you meet. The issue is still who can they get rid of next rather than looking at the long term benefits of quality, production repeatability and lowering costs for short run production."

Nick Garnett

ARCHITECTURE

A brave search for perfection

Colin Amery reports on this year's Aga Khan Award

MONUMENTS versus sewers; the past versus the present; spirituality versus materialism; almost East versus West. These were only a few of the debating points raised in Cairo last week at the presentation of The Aga Khan Award for Architecture.

The Award was initiated in 1977, when the Aga Khan and his advisers looked at the Moslem world at a moment of incredibly rapid oil revenue-funded change and felt that something was badly wrong. It was founded to commend architectural excellence of an appropriate kind in all corners of the Islamic world. But the Award itself is only the tip of a complex iceberg.

The Award aims high: "to nurture within the architectural profession and related disciplines a heightened awareness of the roots and essence of Moslem culture, and a deeper commitment to finding meaningful expressions of the spirit of Islam within the context of modern life and technology." This is a tough agenda. It has provoked a searching process that incorporates think tanks and seminars, papers, publications and a series of international committees of daunting complexity. Through all this emerges a conviction to grapple with that massive issue, the search for a new environment. It is a search which the Aga Khan invites the whole world to join.

The Aga Khan's involvement brings both a high level of seriousness and a measure of spectacle to the Award's proceedings. Last week as the sun went down over the great Cairo Citaldel of Salah al-Din, the Aga Khan, accompanied by Mrs Suzanne Mubarak, wife of the President of Egypt and a ragged panoply of police bands, bagpipers and pikemen, arrived to announce this year's winners. Somehow the spectacle reinforces the dilemma of the whole award: the wandering leader without a land, culturally based in America, England, Switzerland and France yet spiritually at home in the Islamic world; generous in his hospitality but conscious, as the Award is, of the anomaly of the need for conspicuous expenditure to focus the eyes of rich nations on the needs of the poor.

One winning project of the final eleven stands out because it shows how architecture at its most basic can help the development process in poor countries. The Grameen Bank housing project in Bangladesh tackles the problem of housing the landless poor. The bank was created in the 1970s as a co-operative association to lend money to people who have no security.

As part of the programme to help with the provision of flood-resistant houses, a kit of simple parts was devised to be distributed, along with an average loan of some $350 (£220). Four concrete columns, corrugated iron roofing and a latrine are provided – the borrowers provide the rest. Gradually modest houses are built, and the loans applied to income generating projects to ensure repayment. More than 45,000 houses have now been built and the defaults on the low interest loans are as low as two per cent.

The rehabilitation of Asilah, Morocco, which dates back to the Phoenicians

The Grameen system of loans has become a social and development organisation. It depends on the creation of groups of borrowers, all of whom promise not to default. Further loans are conditional upon the disciplined repayment by the whole group. Most of the borrowers are women and they clearly exert a kind of group moral pressure to ensure the small loans are repayed.

As the 20th Century draws towards its end the problem of rural and urban poverty remains a curse that must somehow be lifted. This grass roots loan system, working not as charity, but as a stimulus to work and improvement, offers a potential route to the eradication of primary poverty and the Aga Khan Award to this scheme demonstrates a determination to keep the definitions of architecture and environmental improvement as wide as possible.

Traditionally the Award has encouraged the careful restoration of monuments, old quarters of towns and buildings that will always be seen as exemplars of the high points of the Islamic style. The impressive total rehabilitation of the town of Asilah, a town on Morocco's Atlantic coast that dates back to the Phoenicians, was this year's major example of urban restoration. The total restoration of the war-damaged Grand Omari Mosque in Sidon, Lebanon inspired the jury to see it as, "a beacon in a tortured land." A new mosque on the Corniche in Jeddah, Saudi Arabia was designed by the London based architect Abdel Wahed El-Wakil. It is entirely traditional and was applauded by the jury for the way it, "reflects the luminous past of Islamic societies."

It was this Mosque that inspired the fiercest debate of the Cairo conference; it is the debate we are achingly familiar with in Britain. Is it right to ignore the present and copy the past? The answer is that it is wrong to toss away tradition and perhaps equally wrong to impose alien western inspired modernism on the Islamic world. It was a problem that has always worried serious architects. Lutyens, when he was building the great Indian capital of New Delhi, did not want just to copy Indian styles or to stick them on to Western classical architecture. His work at New Delhi showed that a new synthesis is possible in the search for architectural universality. He felt that the rounded arch had something to offer the East, and wrote at the time that "God did not make the Eastern rainbow pointed to show His wide sympathies." It is this kind of boldness to re-examine the architecture of both east and west that the Aga Khan Award tries very hard to achieve.

Sometimes I feel that the Award is let down by the architects, who seem unable to aspire to inventive change. The inclusion of the excellent new Ministry of Foreign Affairs in Riyadh (designed by the Danish architect Henning Larsen) shows how a fruitful synthesis between modern architectural practice and the inspiration of the indigenous past can produce, in the right hands, a new masterpiece. Whether this is true of the National Assembly Building in Dacca, Bangladesh, designed by the late Louis Kahn from America is much more debateable. It was also awarded a prize, as was the Institut du Monde Arabe in Paris by the French architect Jean Nouvel, which is equally problematical as an example of the partial imposition of Islamic ideas upon a high tech structure.

But debate is at the heart of this brave search for Islamic perfection. The Aga Khan Award recognises that we all live in one world with different traditions. It is where those traditions meet that there is the potential for debate that can be creative. It is a brave thing to take on the whole modern world; and perhaps heroic to look for a universal answer.

Stop the World

LYRIC THEATRE

Stop the World – I Want to Get Off, by Anthony Newley and Leslie Bricusse, returned to the West End last week only to prompt such dire, not so heretical, thoughts as "Stop the show – I want to get out."

In an evening of unadulterated whimsy, the ageless Newley recreates his allegorical hero Littlechap, sings as well and curiously as ever he did, and yet still manages to leave you (or to be exact, me) limp with dissatisfaction.

As a "one-off", some commentators in 1961 considered the show "avant-garde." Newley had worked with John Cranko in revue, and his monomaniac story, so putridly uninteresting and, well, allegorical, compared with O'Toole's Jeffrey Bernard immediately next door on Shaftesbury Avenue, is encumbered with a female corps de ballet in black tights and halters.

They dance workers, Red Army elbow-jutting poster people, parliamentarians and girlfriends. Their corporate submission is infinitely more interesting than Newley's coy dominating egoism, and I salute the work of Dollie Henry, Wendy Schoemann, Julia Howson and Kim Ismay.

The slobberchops sentimentality is even less appealing now than it was to Caryl Brahms in the first place, who described "a sort of fable, funny here and there, in what used to be known as the Expressionist manner."

A Cockney white-face chappie is born under a revolving globe. Clad in blue T-shirt, braces, and checked suit, he impregnates the boss's wife, Eve (the very tall and entirely wasted Rhonda Burchmore), is posted to the firm's Northern outpost in Sludgepool, is sent to Moscow and New York where he seduces female business associates (also played by Miss Burchmore), joins the Snobs' club, goes into politics (as a man who knows his unions, he says "up the TUC"), is widowed and finally dies wondering what kind of fool he is.

Newley is a capable mime, but I shall never again complain about having to watch Marcel Marceau. He is neat and surprisingly un-bored with his own songs. "What Kind of Fool Am I?" is new-minted after the excessively ham treatments of Norman Wisdom and Sammy Davis Jr, the lyric laid with expert rubato phrasing over a melodic counterpoint.

"I Wanna Be Rich" retains a certain peppiness, encapsulating the working class ethic of getting on and getting out which the show as a whole celebrates. And "Gonna Build A Mountain" remains an excellent item, with tart lyrics and a driving pulse.

Everything else struck me as pretty awful, with the exception of "Someone Nice Like You," a charmingly melodic duet for the couple who come to realise too late what they have lost.

My reactions are similar to those I had when the sequel, *The Roar of the Greasepaint – The Smell of the Crowd*, was revived last Christmas at the Orange Tree.

As musicals, the shows are dead ducks. Anthony Newley's production, titivated by David Gilmore, is as good as it could be. But finally dreary.

The absence of any dramatic context or energy is glossed over in a staging (choreography by Kenn Oldfield) that now seems as avant-garde as Frankie Vaughan, who graced the First Night proceedings alongside Newley's ex-wife, Joan Collins.

Douglas Heap's design is either a manufacturing warehouse or a rehearsal room, with an upstage aperture that both frames Littlechap at crucial moments and contains a monumental silhouette of the old reaper. Not least among this sloppy musical's unsolved mysteries is the gratuitous obsession with unexplained death.

Michael Coveney

RPO

ROYAL FESTIVAL HALL

The cellist Mstislav Rostropovich is in town to play three concerts, for which the Strauss evening on Friday will have provided a marvellous centrepiece. Although there is general agreement that *Don Quixote* is one of the most consistently inspired among Strauss's tone poems, the piece can be difficult to bring off in a concert, where the lone cello hero is pitted against an orchestra of awesome size and complexity.

In this grand and impassioned performance, given as part of the autumn Strauss series being presented by the Royal Philharmonic Orchestra under Vladimir Ashkenazy, it was as though those problems did not exist.

Rostropovich simply has two great strengths that put him at the head of the field when it comes to playing this part: the renowned big cello tone to make himself heard and force of personality with which to sketch a striking character portrait.

At every point this *Don Quixote* was marvellously distinctive. One might cite the headlong vigour as Rostropovich sent his knight charging into the band of pilgrims or the pathetic shriek for help as he met his match in the final contest with the "Knight of the White Moon," neither equalled by any other cellist I have heard in the piece. The whole of the final scene was also deeply moving, with Quixote's dying gasp expiring on the most shaky and infirm whisper of sound.

Altogether there was a greatness of vision, a generosity of feeling about the playing that added up to all that is best in *Don Quixote*, as conceived jointly by Strauss and Cervantes.

On a purely musical note one might argue for a performance that brought to the score a greater analytical clarity. But Rostropovich and Ashkenazy seemed at one in their general approach to the work, playing both its flamboyance and its expansive lyricism for all they were worth.

After the interval we had *Ein Heldenleben*, which Ashkenazy had conducted just a few weeks earlier at the Proms with his other orchestra, the Berlin Radio Symphony. This was better played by the RPO and in that respect more convincing – a big, full-blown account, given to grandiose gestures that did perhaps go some way towards making sense of the appellation "Arrogant genius" bestowed upon the unfortunate composer for this series.

Richard Fairman

Tantz-Schul

OPERA DE PARIS

On Friday night the new season began for the Paris Opéra Ballet. With the Bastille house now given over to opera, the French have with characteristic pride and artistic good sense, made Garnier's great palace a home for dance. It would not, of course, be the Paris Opéra if there were not a drama brewing and Rudolf Nureyev, director of the ballet, is currently is dispute with the administration and busy with a North American tour of *The King and I*.

But Jean-Albert Cartier, general administrator of the Opéra de Paris Garnier (as the building is now to be known), has devised a bold season under the new dispensation, the Opéra Ballet's own performances interspersed with visits from the Kirov, Hamburg, Béjart and Paul Taylor companies.

The opening programme is given over to Jiri Kylian, teaming one of his recent pieces, the *Tantz-Schul* made for Nederlands Dans Theater in May, with *Sinfonietta* which dates from 1978.

The score for *Tantz-Schul* is by Mauricio Kagel and is inspired by the melodies in an 18th century dance manual by Gregorio Lambranzi. Published in Nuremberg in 1716, the "New and Curious School of Theatrical Dancing" was intended by its author to enable the reader to perform the noble or grotesque dances he had devised.

Its fascination for later generations has been its vivid illustrations. Each page shows dancers in dramatic poses, sometimes wildly eccentric (as when dancing with a roasting-spit, or linked at the waist by rope), the text headed by the tune of the dance and an often extravagant title ("Game of rackets and Witches' Sabbath"; "Statues and Models") and further embellished by a cartoon-strip at the foot of the page, in which manikins caper and posture around the details of how the dance is to be performed.

There is a seething imagination here, with characters from the commedia dell'arte, from daily life of Lambranzi's time, all touched with a daring sense of their theatrical possibilities. And it is this that has inspired Kylian.

To the 18 sections of Kagel's lively score he has devised scenes inspired by Lambranzi's most "curious" imagery and titles – John Macfarlane's excellent stage design is similarly animated – and has extrapolated from them incidents concerning the nature of dancing today.

Matters begin well. Laurent Hilaire, in formal black dress of an 18th century dancing master, is found among cross-hatched pillars that reflect the dance manual's engravings. Hilaire has an opening solo – by turns witty, ardent, lubricious – and the full extent of the Garnier stage is revealed as a white box into which action and accessories will be placed.

An inner stage – part of the depths of the *Foyer de la danse* – will serve as another theatre for the ballet-master. There follow a series of entries in which Lambranzi is the starting point for movement satiric, grotesque, serious. Burlesque Spanish dancers (three men *en travesti*) a bird-footed huntsman shooting hyperactive swans (a consummation devoutly to be wished for by ballet-goers), numbers for Bacchus and Turks, are interspersed with scenes in which simply-clad dancers are the raw material for the ballet-master.

There are physical japes and caprices of design when stage perspective is heightened, as the soprano called for by the score appears as a giantess matched by a normal-sized dancer and a tiny automaton that rolls merrily about the stage.

And at last, as Kagel repeats his musical themes in inverse order, Kylian rolls back the action in nightmare fashion as the ballet-master seems alternately victim and master of his creations.

With a running time of 80 minutes, *Tantz-Schul* is long. Too long, indeed, for Kylian has been unable to resist tricks from the theatre's magic box and does not deploy enough of those felicities and ingenuities of choreography – or the editorial scissors – that can dominate such extended material. The idea for the ballet is brilliant and it has visually stunning moments, but it is to Lambranzi and John Macfarlane that it is most indebted for vitality.

The Opéra dancers are everywhere at their best. Laurent Hilaire, technically superb, gives a magnificent performance, buoyant, despairing, sardonic, as master of these revels.

The succeeding *Sinfonietta* is dancing Czech to Czech. Kylian's burningly sincere response to Janacek's score is compounded of ecstatic racings about the stage and Central European yearning. Given by a tremendous cast headed by six of the Opéra's finest dancers, it has ever looked to me like a faked orgasm of national feeling and I would swap it all for 30 seconds of Balanchine's *Agon*.

Clement Crisp

OBITUARY

Sir Anthony Quayle

Sir Anthony Quayle, who died on Friday aged 76, was one of the outstanding personalities in the British theatre this century whose contribution was not always fully appreciated. In many ways he was the architect of the Royal Shakespeare Company which was founded by Sir Peter Hall in 1960.

Quayle had gone to Stratford-upon-Avon as a director and actor in 1948 and played Falstaff in the 1951 history play cycle.

He was artistic director of the Shakespeare Memorial Theatre until 1956 and was certainly instrumental, as Sally Beauman recounts in her history of the RSC, in gaining the succession for Hall (with Glen Byam Shaw, he had earmarked Hall for great things), though his departure from Stratford was finally marred by acrimony.

He made his London stage debut in 1931, joined the Old Vic in the following year and played a string of important classical roles throughout that decade. He served with the Royal Artillery during the War.

He was an inveterate nomad, a renowned company leader and a widely respected director. This led to the formation of Compass Theatre Company in 1982, a troupe he led gallantly around the regions, playing Prospero, Cauchon in *Saint Joan*, King Lear and the Mayor in *The Government Inspector*.

As an actor he was a commanding presence, with steely blue eyes that were an especial asset in the cinema (*Ice Cold in Alex*, *The Guns of Navarone*, *Anne of the Thousand Days*), and a clear, persuasive and instantly recognisable voice.

He played Aaron to Olivier's *Titus Andronicus* in 1957, Sir Charles Dilke in *The Right Honourable Gentleman* in 1966 (he always looked the part of a statesman or politician in evening dress) and Andrew Wyke in the hit thriller, *Sleuth*, in 1970.

He did surprisingly – some would say scandalously – little for either the new National Theatre under Olivier, or the RSC, but he directed *The Idiot* at the Old Vic for the NT and appeared opposite Peggy Ashcroft in *Old World* for the RSC. He was made CBE in 1952 and knighted in 1985.

MC

ARTS GUIDE

October 20-26

MUSIC

London

The Philharmonia conducted by Esa-Pekka Salonen, with Sarah Leonard (soprano). Stravinsky, Ligeti. Royal Festival Hall (Mon) (928 8800).
Royal Philharmonic Orchestra conducted by Vladimir Ashkenazy, with Elisabeth Söderström (soprano). Richard Strauss, Mahler. Royal Festival Hall (Tues) (928 8800).
Orchestra of the Age of Enlightenment conducted by Gustav Kuhn, with soloists. Haydn. Queen Elizabeth Hall (Wed) (928 8800).
The Philharmonia conducted by Carlo Maria Giulini, with Salvatore Accardo (violin). Weber, Mendelssohn, Brahms. Royal Festival Hall (Thur) (928 8800).

Paris

Elena Obraztsova Recital. Gaveau (49530507) (Mon).
Orchestre Colonne conducted by Philippe Entremont (piano). Berlioz, Mozart, Tchaikovsky. Salle Pleyel (45638873) (Mon).
Ensemble Intercontemporain conducted by Peter Eotvos: Gielen, Hoeller, Ligeti. Opéra Comique (43960611) (Mon).
Bruno-Leonardo Gelber, piano recital. Théâtre des Champs Elysées (47203637) (Mon).
Orchestre de Paris conducted by Rudolf Barshai, Joseph Suk (violin). Mozart, Martinu, Brahms. Salle Pleyel (45630796) (Wed, Thur).
Orchestre National de France conducted by Wolfgang Doerner, with Rudolf Buchbinder (piano), Yumi Nara (soprano): Dao, Mozart, Dvorak. Théâtre des Champs Elysées (47203637) (Thur).

Brussels

New Arts String Quartet performs Beethoven, Ichiyanagi, de Pablo and Ravel. Palais des Beaux-Arts (Tues).
The Monnaie Symphony Orchestra and Chorus conducted by Sylvain Cambreling, with Harald Stamm (bass), Jean-Claude Vanden Eynde (piano) performing Mozart (Wed, Thur). Theatre Royal de la Monnaie.
Le Trio Français performs works by Fauré, Jolinet, Lalo and Mozart. Cercle Royal Gaulois (Wed).

Amsterdam

Amsterdam Baroque Orchestra with the choir of the Netherlands Bach Society and soloists, Ton Koopman conducting. Mozart (Tue). Concertgebouw (718 345).
Theo Bruins (piano) and wind soloists. Beethoven (Thur). Concertgebouw. (718 345).

Utrecht

Amsterdam Baroque Orchestra with the choir of the Netherlands Bach Society and soloists, Ton Koopman conducting. Mozart (Mon). Vredenburg (31 45 44).
Netherlands Philharmonic Orchestra conducted by Harmut Haenchen, with Olga Martinova (violin) and Jan Stegenga (cello). Brahms (Tue, Wed). Vredenburg (31 45 44).

Rotterdam

Netherlands Wind Ensemble conducted by Richard Dufallo. Gerswin, Barber, Stravinsky. Doelen (413 2490) (Tue).

Milan

Quartetto Borodin. Beethoven, Webern and Shostakovich (Wed). Conservatorio G. Verdi (76001755).

Florence

Soviet Radio Orchestra conducted by Vladimir Fedoseev playing Tchaikovsky, with Vladimir Ovcinnikov (piano), winner of the 1982 Tchaikovsky prize (Tues). Teatro Verdi (212320).

Rome

The Solisti Veneti conducted by Claudio Scimone. Vivaldi, with flautist James Galway (Wed) Teatro Olimpico (393304).
Vladimir Ovchinnikov (piano). Rachmaninov (Thur) Teatro Ghione (63.72.294).

Vienna

Wiener Mozart Orchester in historical costume. Conducted by Konrad Leitner. Mozart. Konzerthaus (Wed).
Deutsche Kammerphilharmonie conducted by Maria Venzago, with: John McLaughlin (guitar). Milhaud, Ives, Schoenberg, McLaughlin. Konzerthaus (Mon).
Wiener Kammerorchester conducted by Ottokar Prochazka. Mozart, Debussy, Ravel, Verdi, Richard Strauss. Konzerthaus (Tues).

Madrid

Munich Philharmonic Orchestra conducted by Sergiu Celibidache, Bruckner (Tue). Verdi, Strauss, Brahms (Wed).
Auditorio Nacional de Musica Strassburg Philharmonic Orchestra. Theodor Guschlbauer conducting with Pierre Garette (cor anglais). C Prieto (music specially composed for the Autumn Festival), Berlioz (Thur) (337 01 00).

Barcelona

London Symphony Orchestra conducted by Kent Nagano, with Mstislav Rostropovich (cello). Milhaud, Honegger, Dvorak; celebrating Catalonia's 1,000th anniversary, sponsored by Banco Bilbao Vizcaya. (Thur) Gran Teatre del Liceu (318 91 22).

New York

Orchestre Symphonique de Montreal conducted by Charles Dutoit. Schubert, Hindemith, Prokofiev (Mon); with Midori (violin). Wagner, Bartok, Stravinsky (Wed) (247 7800) Carnegie Hall.
New York Philharmonic conducted by Leonard Bernstein. Copland programme (Tue): Tchaikovsky programme (Thur). Avery Fisher Hall (874 2424).
Peter Serkin (piano) and Young Uck Kim (violin) recital. Beethoven programme (Wed). Kaufmann Hall (996 1100).

Washington

Andre Watts piano recital. Chopin, Rachmaninov (Tue). Kennedy Center Concert Hall (467 4600).
Moscow Virtuosi directed by Vladimir Spivakov with Maria Joao Pires (piano). Mozart, Gubaidulina, Haydn (Wed). Kennedy Center Concert Hall (467 4600).
National Symphony Orchestra conducted Hiroyuki Iwaki with Leonidas Kavakos (violin). Toshi Ichiyanagi, Dvorak, R. Strauss (Thur). Kennedy Center Kennedy Center Concert Hall (467 4600).

Chicago

Chicago Symphony Orchestra conducted by Gunter Wand. Bruckner programme (Thur). Orchestra Hall (435 6666).

Tokyo

Academy of Ancient Music conducted by Christopher Hogwood, with Melvin Tan (fortepiano). Mozart, Beethoven, Schubert. Suntory Hall (Mon) (505 1010).
London Philharmonic Orchestra conducted by James Loughran. Mendelssohn. Showa Women's University Hitomi Memorial Hall, near Sangenjaya (Tues) (780 5400).
Kyung-Wha Chung (violin), with the NHK Symphony Orchestra conducted by Kazuyoshi Akiyama. Beethoven, Brahms (Tues, Wed). Suntory Hall (Wed) (211 5555).
Jessye Norman (soprano), with Phillip Moll (piano). Showa Women's University Hitomi Memorial Hall, near Sangenjaya (Wed) (289 9999).
Leningrad Philharmonic Orchestra. Wagner, Berlioz, Liszt (Wed); Tchaikovsky, Beethoven (Thur). Bunkamura, Orchard Hall (235 1616).
Traditional Japanese Music: koto, shamisen etc. ABC Kaikan Hall (Thur) (436 0430).
Camerata Musica, Berlin. Mozart, Vivaldi. Suntory Hall (Thur) (289 9999).

SALEROOM

Strength from Impressionists

Sotheby's finished the first important sale of the new art market season on Saturday in New York in a fairly satisfied frame of mind. The John T. Dorrance collection brought in $131,297,870 (£83m) from six auctions. The total was comfortably above the low estimate of just over $100m. but less than the $140m high forecast.

These days the auction houses have become used to being pleasantly surprised by how well sales have gone; this time there was no great cause for celebration. But at least Sotheby's secured the $100m. guarantee reputedly offered the Dorrance heirs to win the collection against competition from Christie's.

Dorrance, who died last spring, inherited the Campbell Soup fortune and was a great art collector for more than 30 years. But the dependence of the art market on Impressionist pictures for its turnover came across strongly from this sale. The 44 top paintings brought in over $116m of the total on Wednesday night, leaving the American and British pictures, the furniture, silver and ceramics, which accounted for another almost 900 lots, way behind.

Top price on Saturday was the $440,000, double estimate, paid for a Louis XVI ormolu mounted mahogany bureau plat of the late 18th century, signed J. H. Reisener. A set of six George II gilt decorated scarlet japanned cane side chairs of around 1735 went for $352,000. They had been sold by David and Lady Pamela Hicks from Britwell House in Oxfordshire ten years ago. Two large Chinese jade vases and covers of the 19th century, 21in high, went to a New York dealer for $231,000 while a Meissen and German ormolu centrepiece, mounted with French porcelain blossoms, mid-18th century, did well at $90,750.

A very different deceased estate comes under the hammer of Christie's South Kensington on Cheltenham racecourse today: 10,000 unsold items from the stock of the antique dealer Ronald Summerfield. A famous local eccentric, Summerfield ended his days buying up flats in the town in which to store his assorted collection of pictures, silver, clocks, jewellery, in fact everything. He seems to have sold little.

Many of the objects are still in their packaging and the overall quality is low. Basically he bought antiques from the break up of local houses, an upper class Steptoe. But antique dealers will be looking for bargains missed by Christie's in its mammoth cataloging exercise. The sale is the longest it has held this century, stretching over six days.

Antony Thorncroft

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NUMBER ONE SOUTHWARK BRIDGE, LONDON SE1 9HL
Telephone: 01-873 3000 Telex: 922186 Fax: 01-407 5700
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When justice is on trial

LAST WEEK'S decision by the Court of Appeal to quash the convictions of three Irish men and one English woman who had spent 14 years in jail for bombings by the IRA raises questions about police procedures, the weighing of evidence, the mechanism of prosecution and the adversarial nature of British criminal proceedings. They need answers.

There was a general feeling of outrage at the bombings of public houses at Guildford and Woolwich in 1974, in which seven people were killed. This may explain, although not excuse, the sense of urgency which led the police to alter notes of interviews, suppress significant matters, and give false evidence at the trial of the four in 1975. It is now thought to be possible that senior persons may have instructed those lower down to tell lies in court. If this suspicion turns out to be well-founded, no amount of pressure could explain it away. It is not uncommon for the police to adjust their notebooks before giving evidence in cases in which they are, rightly or wrongly, convinced of the guilt of the accused. The practice is a consequence of a role-playing court procedure, in which the principal objective – to ascertain the truth – can sometimes be overshadowed by the compulsion to win the case.

The worst dangers of this method of determining guilt might be avoided by the general adoption of Scottish practice, whereby a suspect is questioned shortly after his arrest by the procurator fiscal, whose functions combine those of an examining magistrate and a prosecuting counsel.

Further reforms

A truly independent, properly funded, directorate of public prosecutions, charged with reviewing all the facts in important cases before allowing proceedings to continue, could perform this function in England and Wales. Although the establishment of the Crown Prosecution Service is a step in this direction there are questions about its terms of reference and the adequacy of its resources.

Strengthening the service might alter the nature of the pressures upon the police. Further reforms are, however, now clearly necessary. The safeguards introduced by the Police and Criminal Evidence Act of 1984 ought to be extended. It should not be possible to convict on the basis of confessions alone, even in terrorist cases. If confessions are to be admissable they should be tape-recorded, preferably in the presence of a solicitor, and best put to the accused by an examining magistrate, since it is possible to intimidate a suspect before turning on a tape.

Independent body

The suitability of the Court of Appeal as a means of obtaining justice is also under question, since the wrongful conviction of the Guildford Four stood unquashed for 14 years, in spite of being examined several times by both the court and the Home Office. Perhaps there should be an independent review body, as recommended by the Home Affairs Committee of the House of Commons; alternatively the court should widen its own horizons to include the total review of all aspects of suspect cases.

These structural questions require further thought. Sir John May, who will head the judicial inquiry into the affair, will report on the circumstances leading to the wrongful imprisonment of the four. He will also investigate the circumstances leading to the 1976 trial of the Maguire family for possession of explosives. Resistance to the Irish pressure for a similar inquiry into the case of the "Birmingham Six" will also be difficult to justify. Such inquiries may go some way towards establishing blame, and pinning it on individuals – but they are not intended to perform the task of a root-and-branch examination of the system of criminal justice itself.

Such an examination, by a properly constituted body, would serve a useful purpose. There is scepticism about police evidence, as shown by the decisions of many juries. Confidence in judges and the appeals system may have been severely damaged by the events of last week, in spite of the fact that, in the end, the mistake was admitted and matters were put right. It is now the system that needs to be put right.

A triumph of common sense

THE DIPLOMATIC breakthrough between Argentina and Britain last week is a heartening example of the triumph of common sense over prejudice and rhetoric. The agreement negotiated in Madrid provides a realistic framework in which the two sides can normalise their relations and heal the scars left seven years ago by Falklands conflict. Furthermore, with Britain demonstrably making friends with Argentina again, the one potential irritant in its broader relations with Latin America should disappear.

Argentina has formally accepted that its historic claim of sovereignty to the Falkland islands cannot again be pursued by force. By putting the issue to one side and committing himself to improve relations with the UK, President Carlos Menem has implicitly admitted Argentina has other priorities. These are all too plain to see in the country's hyperinflation, indebtedness and the weakness of its democratic institutions. Yet for a man steeped in the nationalist bombast of Peronism, President Menem has shown considerable courage by negotiating in the knowledge that he could obtain so little to soothe the nation's wounded pride over the Falklands debacle.

Britain has seized the opportunity presented by the advent of a new Argentine president willing to break the deadlock. There has been a tendency in Whitehall to sit far too tight and let Buenos Aires sweat in the belief that no Argentine government, civilian or military, was either stable or trustworthy. The Foreign Office, so pilloried for reading Argentina wrong in the run-up to the Falklands conflict, deserves some credit on this occasion for persuading Mrs Thatcher to drop her objections to dialogue.

Consular relations

The deal envisages a quick re-establishment of consular relations, the restoration of direct air links and the settlement of contentious issues of practical benefit to both sides. For instance, working groups will be set up to consider military confidence building measures and co-operation over fisheries. The inability to talk directly about control of the lucrative fishing business in the South Atlantic has seriously prejudiced conservation measures in the past five years. The two sides also need to have mechanisms in place in order to avoid military friction.

Despite strong pressure, Britain has refused to remove the 150-mile protection zone round the Falklands. The Ministry of Defence argues that this is the most cost-effective means of defending the islands. However, an intelligent concession in the Madrid agreement was to realign the protection zone with the Falklands fishing conservation zone in the area contiguous with Argentine mainland territorial waters. Argentine vessels will be allowed to fish in just over 5 per cent of the protection zone.

Residual mistrust

The degree of residual mistrust between the two sides is underlined by the cautious approach to full diplomatic relations. These should come after the next formal meeting of diplomats in February 1990. But the move is difficult to make since both sides have to come to terms with the source of conflict, the Falklands.

Argentina has to find a formula whereby its claim to the Falklands is not forgotten, while assuring Britain that the islanders' future as British citizens is peacefully guaranteed. Britain has to define more clearly the political future of the 2,000 islanders and how they are to be protected. The huge capital costs of new defence facilities have been absorbed, but Britain's annual military spending on the Falklands is still at around £100m. This covers the maintenance of a 1,400- to 1,600-strong garrison capable of protecting the Mount Pleasant airport/military complex until reinforcements arrive from the UK. The garrison has been pared to the minimum and any cuts would undermine defence credibility.

This said, the post-1982 Falklands military buildup has been predicated on an Argentina that was manifestly aggressive and untrustworthy. Logically, such a view should begin to disappear with relations on the mend. But Argentina must recognise that it still bears the onus for establishing a new basis of trust.

Peter Norman on the 10 years since the abolition of UK exchange controls

Going over the cliff

Mr Nigel Lawson, the Chancellor, is not noted for his sense of fashion. But he sometimes sports a handsome tie depicting Britannia in a laurel wreath with the letters EC and the dates 1939-1979.

The tie is one of a limited series produced for Bank of England staff who worked in the exchange control department. It is a last reminder in Government of the vast array of controls introduced as a war-time measure and which continued to invade practically every aspect of British business life until 10 years ago today.

Although few people realised at the time, the abolition of exchange controls by Sir Geoffrey Howe, Mr Lawson's predecessor, was one of the great turning points in Britain's post war economic history.

It marked far more than the end of a great British tradition of busybodying. The dismantling of the measures, which were designed primarily to protect Britain's foreign exchange reserves from chronic balance of payments weakness, exposed the UK economy to the harsh discipline of outside market forces. The Government's decisions, which were implemented overnight, ushered in revolutionary changes for industry, the City and Government policy.

During the 40 years of exchange controls, the rules were continually altered to reflect changing circumstances. At times they could be draconian, as in 1966 when Mr Harold Wilson's Labour Government was fighting to stave off the devaluation of sterling and British travellers were not permitted to take more than £50 abroad on holiday. Such rules had been relaxed by 1979, when the newly elected Conservative Government started on what was expected to be a gradual programme of liberalisation.

The overnight abolition of all remaining controls 10 years ago was none the less a radical step. "We decided there was nowhere left to go but over the cliff," Sir Geoffrey recalls. "It was the only decision of my political life that has ever given me a sleepless night."

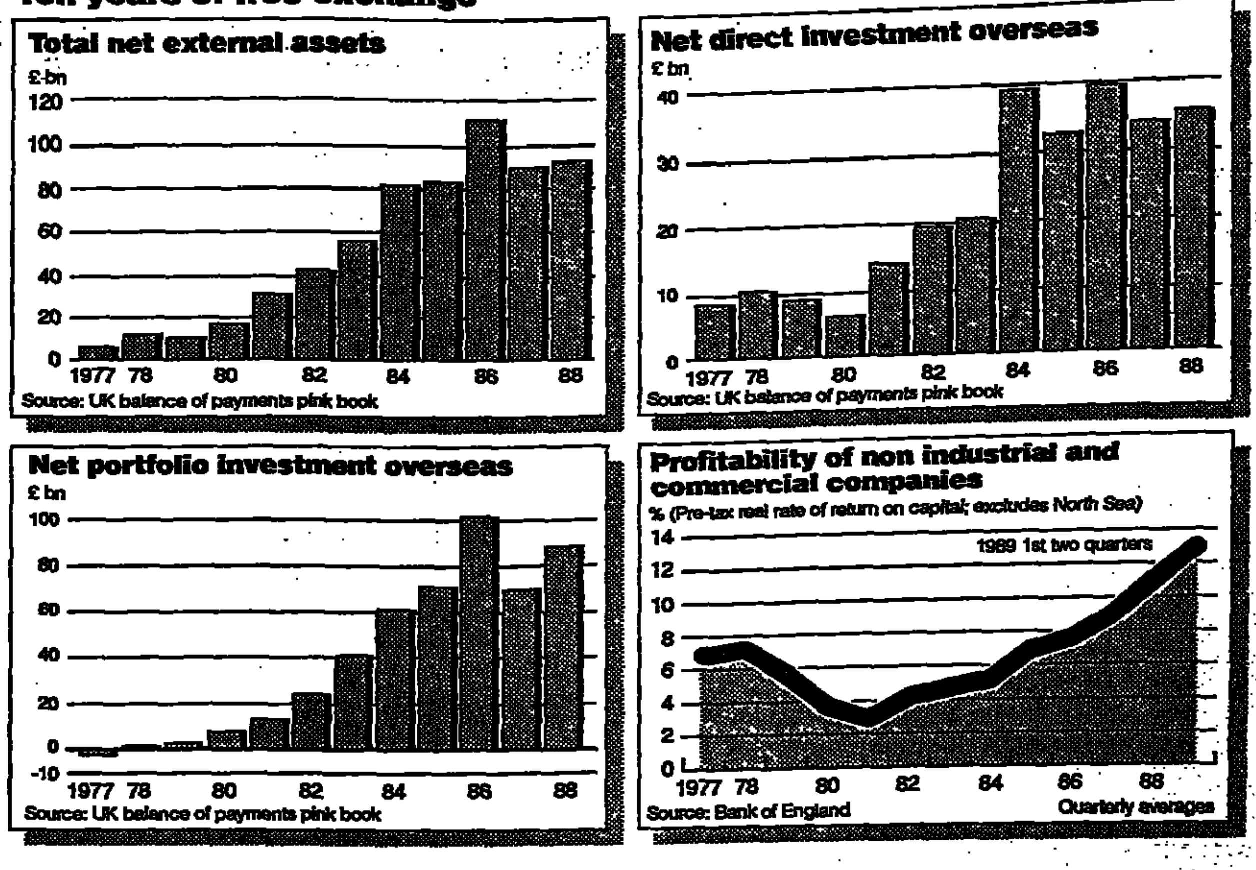
British residents were given complete freedom to keep and use foreign currency for travel, gifts, loans to non-residents and investment in foreign property and securities. People no longer had to have their passports marked with the foreign currency bought to take on journeys abroad. All rules inhibiting outward portfolio investment and inward and outward direct investment were lifted. An entire Bank of England department, which had employed 1,650 people at its peak in 1950 and about 750 in 1979, was disbanded.

The end of exchange controls was one of the great turning points in Britain's post war economic history

The abolition coincided with other important changes in the economy. At the end of the 1970s, Britain was emerging as an important oil producer and as an exporter was to be a major beneficiary of the 1979-80 oil price rise. Higher oil prices, together with the election of a Conservative Government pledged to combatting inflation, caused sterling to rise sharply on foreign exchange markets. On a trade weighted basis, the pound advanced by more than 25 per cent in 1979 and 1980.

This combination of factors turned back the clock. Britain again became a large international investor as it had been before the First and Second World Wars. As the charts indicate, the lifting of controls unleashed pent-up demand for foreign assets by investment institutions. It also appeared to encourage direct investment abroad even though the controls had been applied liberally in this area.

Ten years of free exchange



The accumulation of assets abroad – many of them at the time of a strong pound in the early 1980s – turned out to be a first rate investment for Britain PLC. The assets will provide a large nest egg for when North Sea oil runs out. The dividend and interest payments make a significant contribution towards offsetting the UK's present large trade deficit.

Less obviously, the lifting of exchange controls had other effects on the British economy and society which may turn out to be of greater importance.

● The end of exchange controls appears to have played a vital part in boosting British industry's profitability from the very low levels of the early 1980s to levels not seen for for 25 years. Mr Douglas McWilliams, the Confederation of British Industry's chief economic adviser, argues that behind the jump in the company sector's pre-tax real rate of return to more than 12 per cent last year is the financial pressure of shareholders who know that they can invest abroad if UK performance lags behind the international average. The end of exchange controls has therefore contributed powerfully to the revitalisation of British management.

● Abolition reinforced the international culture of the Britain's financial services industry ensuring that London would remain one of the main international financial centres.

The diversification of portfolios gave the City a head start over other centres in gaining experience of trading foreign shares. Bankers say it was no coincidence that London's computerised dealing system for international shares functioned without problems last Monday when continental bourses seized up in the wake of the Friday the 13th plunge on Wall Street.

As international financial markets became more global, additional activities converged on London creating a virtuous circle of deregulation, innovation and expansion. Hence, US banks now are in London in an attempt to exploit opportunities in mergers and acquisitions. The City has used the era of floating exchange rates to meet demands for hedging instruments and develop derivative markets such as options and futures.

● The successful removal of controls set a precedent and provided an impetus for further domestic deregulation, including successive Conservative Government privatisation programmes. By opening the British economy to the world, exchange control abolition has made it more difficult for a future Labour government to reverse the the overall thrust of Government policies of the 1980s.

● Abolition of British exchange controls was also an important signal in what was to be one of the dominant features of economic policy making in the 1980s: the rolling back of the state and the liberalisation of markets. Pioneered in the UK and the US, market based economic policies became the new orthodoxy of institutions such as the International Monetary Fund and the Organisation for Economic Cooperation and Development. In the European Community, Britain became a tireless advocate of removing exchange control and this goal is due to be completed by next July in virtually all member states.

But in combination with cheap communications technology, the global phenomenon of deregulation and liberalisation also poses problems. The increased volatility of markets, and the way in which extreme price movements can spread from country to country and across time zones, are among the negative consequences of the new order.

According to Sir Adam Ridley, who helped prepare the Conservative Government's decision to eliminate controls and who now is executive director of Hambros Bank, international financial markets at present constitute a "fair weather system."

There is, he argues, "still insufficient prudential control of financial markets and institutions to eliminate the dangers of cracks in the world's financial system when it is under strain as it will be from time to time." Although the leading industrial countries have reached agreement on a system of minimum capital adequacy rules for international banks, supervisory authorities have in general failed to keep pace with the internationalisation of markets that has followed the gradual removal and dilution of exchange controls. "We need strong market participants as well as well-regulated markets," he says.

Nearer home, the end of exchange controls 10 years ago undoubtedly added to the problems of running British economic and monetary policy. The end of exchange controls reduced the authorities' understanding of what was happening in the British economy. According to the Bank a number of important statistical sources were discontinued.

In a nostalgic article written for the Spring 1980 issue of the Bank's Old Lady magazine, Mr Douglas Dawkins, the last head of exchange controls, recalled that controllers gained an insight into many areas of business. "Foreign trade, greenfield investment, take-overs, investment securities, oil, insurance, shipping, diamonds, films, bloodstock, commodity trading, merchanting, documentary credits, factoring, Eurobond issues, roll over credits, cheque cards, bureaux de change, trust law – the list is almost endless."

Together with Government cuts in the statistical services during the 1980s, the removal of exchange controls has left the authorities with far less insight into how the British economy is developing. As one Treasury official admits: "It is no problem forecasting the economy. It is knowing where we are that is the difficulty."

The lifting of controls soon landed the Government's monetary policy in trouble. At the time of abolition, the Government's monetary target was sterling M3, a broad measure of money supply that was kept under control by a special supplementary deposit scheme, known as the corset.

The corset worked by requiring banks to make special deposits at the Bank of England if the deposits placed with them should exceed a specified rate of growth. In a society with exchange controls, the reaction of the banks to such a restriction was to ration credit for borrowers and reduce competition among themselves for deposits thus keeping the money supply under control.

Once controls were removed, the banks found frustrated borrowers were using offshore banking centres to borrow funds. The corset became ineffective and money supply growth leapt, delivering an early blow to the Government's medium term financial strategy that was supposed to put the economy on a predictable and even keel. Ultimately the Government gave up trying to target broad money.

But abolition has brought advantages as well as disadvantages to Britain's economic managers. In the early days of Mrs Thatcher's first Government, when sterling was soaring and putting large sections out of British industry out of business, the absence of exchange controls enabled funds to flow abroad and prevent the pound rising still further.

But nations that depend on foreign financing for current account deficits must ultimately succumb to the discipline of the market place. The absence of exchange controls helped Britain to enjoy a consumer binge in 1988 as long as foreign investors had faith in Government policies. With the Government determined to maintain a strong pound as an important part of its counter-inflation strategy, the price of correcting the overheating in the face of growing international scepticism about Britain's economic prospects has been a doubling of bank base rates to 15 per cent since May 1988.

Nations that depend on foreign financing for current account deficits must succumb to the discipline of the market

Mr Lawson's recent problems are a reminder that a market related system depends crucially on investor confidence. He cannot complain that he was not warned of the dangers.

When scrapping the controls 10 years ago, Sir Geoffrey Howe declared boldly that they had "now outlived their usefulness." But he added prophetically: "The essential condition for maintaining confidence in our currency is a government determined to maintain the right monetary and fiscal policies."

OBSERVER

Oslo bound

■ Flying to Oslo last Monday, the day the world's stock markets were supposed to fall apart, one got a sense of just how difficult it is to stay in touch with the financial markets when there is no longer a Reuters screen at hand. If this had been the US, the pilot would no doubt have been briefing his passengers on how the Tokyo market had closed and how much London equities had fallen at the opening. But all the British Airways pilot seemed interested in was the state of the Oslo weather.

There was not a word of apology for his employer's ill-fated involvement in the collapsed UAL deal, which had triggered the sharp drop on Wall Street, nor for that matter was anything mentioned about the tyre which burst on landing. Obviously, BA thinks it important not to scare its financial passengers even though it has not always shown similar consideration for the nerves of some of its investors.

Given that the local stock market was the biggest casualty of the October 1987 global stock market crash, there might have been expected to be signs of unease among the local businesses community. If it was there, it was well hidden. There were no ticker tape machines rattling in the hotel lobby and the only source of outside information was the hotel's cable TV. Sadly, it was not hooked up to CNN, so there was no chance of catching Lou Dobbs' Moneyline from Wall Street, but the European Business Channel, which is backed by the rather unlikely combination of Swiss banks and Radio Luxembourg, did a surprisingly good job.

Ship talk

■ First stop in Oslo was the headquarters of Bergesen, one of the world's few quoted blue-chip shipping companies. Unlike Britain, Norway remains very much a seafaring nation and once again the Norwegian owners are expanding rapidly. International investors, who have been combing the world for asset plays, have made a lot of money over the last couple of years by investing in companies like Bergesen, Leif Hoegh, Kosmos, Kvaerner Shipping and Storli. But is the party over?

Svein Amundsen, Bergesen's deputy managing director, is not as bullish as some Norwegian owners, which is a polite way of suggesting a few may be over-extending themselves. But he is optimistic about the longer term outlook. "Most of the elements are saying that the next decade will be better than the last", he notes. However, Bergesen still has to decide when to replace its ageing fleet of 17 super-tankers, a task which could cost upwards of $1.4bn. When it does, it will be a sure sign that the industry really is back on a sound footing.

As for why Britain has abdicated its traditional leadership in the shipping industry, the Norwegians are too polite to hazard a guess. Blaming it on unfavourable tax laws, bolshy unions and high wage costs is not good enough. The simple fact is this is one area where Norway has far more entrepreneurs than the British.

Oil man

■ Norway, which is western Europe's largest oil producer behind Britain, has increasingly found itself in an international spotlight not least because of its oil production restraint policy designed to help Opec prop up sagging world crude oil prices.

As the sparsely-populated country's Oil Minister, the 62-year old Arne Oeien was befriended by myriad Middle East sheiks and found himself a guest in many a royal tent. However, last week Mr Oeien was forced to step down when a new Government was formed.

"We've come to take you to hospital on my riot shield"

Norway's new oil supremo is 36-year old Eivind Reiten, a Centre Party man, and a former Minister of Fisheries who has been spending his time out of power learning about the energy business as a director of Norsk Hydro, Norway's biggest public company. However, his image and dress sense seem to have been inspired more by Parisian designers such as Jean Paul Gautier, than by the traditional Brooks Brothers style preferred by Today, Peter Morrison, Britain's Minister of State for Energy, will meet Mr Reiten for the first time as his first official visitor. Mr Morrison will be forgiven if he mistakenly approaches the wrong person for the usual diplomatic exchange of hand-shakes. In this instance, however, Mr Morrison is advised to approach the youthful looking man wearing a shocking pink leather tie.

Hard work

■ Another area where the Norwegians are much more optimistic than the British is shipbuilding. As the British Government dismantles what is left of a once proud industry, the Norwegians are buying up British shipyards at bargain basement prices. The secretive Fred Olsen has never said much about why he was prepared to take on an industrial albatross like Belfast's Harland and Wolff. But the 43 year old Erik Toenseth, the new chief executive of Kvaerner, Norway's biggest mechanical engineering group, is confident that his firm will soon be making money out of Glasgow's Govan shipyard, which Kvaerner bought for £6m 15 months ago.

Kvaerner has long since stopped building ships at its own yards at Stavanger, Moss and Fredrikstad and is now concentrating its shipbuilding on Govan, which he says will be as efficient as any shipyard in the world in two to three years time. "People's memories are always very short. Shipbuilding used to be a very profitable industry." He is confident that the industry will have its day again, and sooner than many think.

If he is right, and he may well be, then the Government's fire-sale of the British industry may not have been a missed opportunity after all.

Drunk joke

■ A Norwegian bemused by the bright lights, at least, of Tivoli Gardens in Copenhagen won as a prize at a coconut shy, a tortoise. Some hours later, more bemused, he comes back but his eye is as straight as before. He wins again. Asked what prize he wants, he says: "Another hamburger, but without the bread as hard as last time."

William Hall

David Marsh, the FT's Bonn Correspondent, reports on three aspects of the German way of life

Wanderlust and model trains

The German state railway is one of the few surviving national institutions. It provides the best way to see rivers and forests, to peer into fairgrounds, car scrapyards and the back windows of apartment houses. The railway gives insights into complexities not visible from the road.

Watching the way people get on and off trains reveals national traits. In Germany, passengers move nervously towards the door ready to descend about 10 minutes before the locomotive stops. They fear that life will somehow run out of control, leaving them stranded.

The German railway age started in 1835. Anniversaries nowadays are celebrated separately, in two German states. The first line linked Nuremberg and Fürth, today in West Germany; the first trunk service was between Leipzig and Dresden, now in the East. Incongruously, the state railway of the German Democratic Republic retains nowadays the name of the pre-war company, the Reichsbahn, set up in 1920 — almost as if the Empire were still waiting in the shunting yard.

West Germany's Bundesbahn is richer and smarter-looking than its East German sister, and provides it with discreet subsidies. East and West Germany also have rival model railway companies. Märklin, the market-leader, founded in 1859, has its headquarters in the Swabian town of Göppingen in Baden-Württemberg. It regards itself as a good deal superior to its East German counterpart, Piko, based in Sonneberg, the Thuringian centre of the East German toy industry.

Reflecting the fall in the birth rate, Märklin is pitching its sophisticated products increasingly towards adults. Even a modest Märklin train set can cost around DM 600 (£209). Wolfgang Huch, Märklin's quietly decisive managing director, says that grown-ups turn to model trains in part because of the rising pressures of everyday life. "A model railway can be directed — it is a way of recovering from a world outside which is not so easy to control."

Märklin offers imperial railway trains stretching back to the 1840s. West German railway enthusiasts are traditionalists. Next to the soft-porn magazines in station bookstalls can be found copies of pre-1945 Reichsbahn timetables.

The Bundesbahn itself is a mixture of ancient and modern, combining plushness, pride and functionality. The maroon Inter-City coaches exude aristocratic solidity, their corridors patrolled by blue-coated Schaffner (conductors) with the air of medieval major-domos. Efficient-looking railway police roam the railway stations looking for drunks. The Bundesbahn consumes 3 million rolls of toilet paper a year in its well-disinfected lavatory compartments. The gliding restaurant cars are a pleasure to patronise. They dispense 1m breakfasts, 170,000 steaks and 180,000 hotpot soups a year. You can choose muesli with hot milk if you like. The meals arrive in china crockery, not plastic. One of the best lunches in Europe is Sauerbraten served on the spectacular stretch of the Rhine between Koblenz and Mainz.

There are 11,000 Schaffner, all state functionaries or Beamte, a species bequeathed by Prussia. One pleasant surprise is that they are friendly and not at all imperial. Most are male, their girth, age and sense of importance increasing in proportion to the size and speed of the trains entrusted to them.

Conductors have an elaborate, set-piece way of asking for tickets, like a question from a multiple-choice examination. "Noch jemand zugestiegen?" (Has anyone got on?) they intone. Late-coming passenger can pay fares en route to the conductor for a small extra charge. The Schaffner will not protest he has no change. He will not even sigh. It is an absolutely routine service — a praiseworthy mark of flexibility.

Since 1985, the Bundesbahn has prevailed upon its Schaffner to serve drinks and snacks to First Class passengers. Reiner Gohlke, an enthusiastic former IBM computer executive who has been the Bundesbahn's chairman since 1982, says that persuading Beamte to serve coffee was one of his greatest achievements. "That was an unbelievable sensation."

A tousle-haired ox of a man perpetually in shirt-sleeves, Gohlke says he he knew nothing about trains when he took on the job. He always used to travel by car. Now, he says, driving along the Autobahn makes him "kaputt."

The motorways show Wanderlust in action. They are clogged with gleaming cascades of metal, flashing their headlights at sub-80 mph dawdlers. The airports are lined with sun-seekers. The West Germans have become the world's greatest tourists — a sign of restlessness.

West Germany has more than 29 million cars, crammed into a country the size of the US state of Oregon. The Germans' travel enthusiasm is an expression of national character, befitting a people whose borders have never been fixed.

Goethe believed that "Die beste Bildung findet ein gescheiter Mensch auf Reisen." (For a man of intelligence, travel gives the best education.) According to the 19th century poet Gustav Freytag, "The German love of wandering ultimately expresses the search for an ideal country."

Needless to say, the Germans are still looking — and they go ever further afield. Footloose knights accomplished the conquest of eastern Europe. As part of the medieval guild system, apprentices used to journey for a year — the Wanderjahr — to gain experience before settling down in a trade. Although legends of rovers and dreamers form part of every nation's folklore, traditional German songs and fairy-tales feature excessive numbers of wandering carpenters and journeymen, princes and tailors.

There is a deep-held view that individual destiny can only be found far from familiar surroundings. *Heimweh* "homesickness" — can be rendered into English (although *Heim* is not easy to define). But *Fernweh* — "longing for beyond" — cannot be translated. The Germans in the East share, of course, the urge to roam — one of the reasons why they do not like the barred-off border to the West.

Travel is partly a means of escaping drudgery. Surprisingly, for a country with such a reputation for industriousness, the Germans do not appear to enjoy working. Elisabeth Noelle-Neumann, the doyenne of the country's opinion-pollsters, who runs the Allensbach opinion research institute, has discovered that her compatriots are rather depressed. She puts this down to Germany's traumatic history. Only 15 per cent of Germans say that they are very proud of their work, against 83 per cent in the US, 79 per cent in Britain, 71 per cent in Ireland and 42 per cent in Spain. The Germans look forward to their weekends more than people in other countries. Work seems to wear them out.

Well-heeled Germans do not like to show off their riches. There are nine Germans in Fortune magazine's list of the 130 wealthiest people in the world. Only one or two have any glitter. "We lack the chic charity set you have in America," laments Werner Rudi, the youthful former editor of the country's best-selling daily newspaper Bild. He concedes that a lot of spicy German news has to come from abroad — "the likes of Rambo or Joan Collins" — because of the lack of home-grown material. He casts envious eyes at Britain. "The British royal family is like a dream — it's Dallas, only its true."

Top of the German wealth league is Johanna Quandt, the widow of industrial magnate Herbert Quandt. Johanna and her family own 70 per cent of car-maker BMW, and are reputed to be worth $3.5 billion. They lead discreet lives. Herbert's stepmother later married Joseph Goebbels and died with him in the Berlin bunker in May 1945. This detail aside, nothing about his life appeared over-exciting.

Konrad Henkel, the grandson (now in his 70s) of the founder of the Henkel chemical company — famous as the maker of Persil — has a fortune of $2.9 billion and throws parties at his villa home near Düsseldorf. Next in the list comes Friedrich Karl Flick, son of Third Reich industrial magnate Friedrich Flick. He stays in hiding most of the time. The only real candidate for Bild's attentions is Prince Johannes von Thurn und Taxis, valued, like Flick, at $2.7 billion. The Prince's ancestors in 1490 established a European mail service which provided the family with a continental postal monopoly until the 19th century. The Prince is a playboy-turned-ageing-husband now in his 60s. In 1980, to the delight of the gossip-columnists and the fashion photographers, he married a young countess, Gloria. She rides motor-cycles around Bavaria and wears outrageous dresses.

The head of the House of Hohenzollern also enjoys the eye of the public — at least, the older people who still care for such things. Louis Ferdinand Viktor Edward Albert Michael Hubert, Prince of Prussia and the grandson of William II, is an avuncular 80-year-old with a look of well-worn gentility. Louis maintains his claim to the throne, but says this could be realised only after reunification of East and West Germany — something he accepts he will not live to see. Louis parries questions about his finances, murmuring, "We are not exactly poor." He is not in the Fortune list. If the royal family is still held in some esteem, "that is because we are completely harmless," Louis Ferdinand chuckles.

The pages of illustrated magazines are full of the tame exploits of Louis' well-behaved children, but the Germans are quite happy to maintain the Hohenzollerns as no more than harmless curiosities. In 1976, Allensbach discovered that only 7 per cent of the population wanted a restoration of the monarchy. Thereafter, it considered the subject not interesting enough to be worth polling further.

This is an extract from David Marsh's book The Germans: Rich, Bothered and Divided, published by Century Hutchinson, £16.95.

LOMBARD

Sterling viewed from Frankfurt

By Samuel Brittan

HORSE-DRAWN CARTS are the only public transport allowed in the old main street of the university city of Heidelberg, but I was told that electric carts, like those used in Zermatt, would soon make their appearance. Would the two forms of transport would compete? "No. The electric carts only pay at a price of two Marks a ride, while a horse-drawn one can charge less than one Mark. So the horses will have to go." This reasoning might make sense in a city where Hegel professed logic but it is a far cry from the competitive social market economy of Ludwig Erhart.

But do not make the fatal mistake of underestimating the German economy because of the absence of charismatic economic intellectuals. A British housewife would not find very daring the experiment in extending shopping hours from 6.00 to 8.00 pm one day a week. The main attack on economic rigidities comes not from the universities but from the flexible new immigrants from East Germany and beyond.

Above all, the Federal Republic is still providing the public good of price stability to its partners who make use of a fixed exchange rate against the Mark as an anti-inflationary anchor. The Bundesbank is not enjoying the process. It spent DM 3.5bn a week ago supporting the Danish Krone. Denmark has ample reserves with which to repay and has been increasing interest rates to strengthen its currency. So the process is workable. The Bundesbank complains that the Mark has shown a real depreciation since the end of 1987. But on its own figures most of this was accounted for by a 13½ per cent fall against the Dollar. Against Community partners, the depreciation has been only 4 per cent and this mostly against the peripheral countries. There has been no change in competitiveness against its key partner France. Indeed, it is now accepted that the French government has no intention of seeking a realignment. The bilateral deficit of France and Germany is a bad guide to policy.

The Bundesbank is resigned to British membership of the Exchange Rate Mechanism and is leaving the British Cabinet to sort out its own disagreements. I mentioned that France was likely to end exchange control well before the July 1990 deadline and thus fulfill one of the Lawson-Thatcher conditions. It could indeed happen before Christmas. The Bundesbank experts said it would also help if Italy, which has been operating within a much narrower margin than its formal 6 per cent one, could reduce the margin to the normal 2¼ per cent. This would leave Spain — and perhaps Britain — operating wider margins, which would be technically easier to handle.

Thus the crucial conditions are a reduction of the British inflation rate — which, correctly measured, is only 1 to 1½ per cent above the Community average — and the choice of a time when the exchange rate is sustainable. Bundesbank advisers see the key not so much in particular numerical rates, but in a conjuncture where interest rates can come down with safety. Thus, once it is clear that 15 per cent rates have done their work and really look like over-kill, EMS entry would be a way of underpinning sterling at a smaller interest rate differential than now exists.

The Bundesbank is suspicious of the attention paid to M0, which "is a co-incident indicator . . . of nominal GDP but gives little early warning of inflationary pressures to come." These words are, however, not from the Bundesbank but from Nigel Lawson's own Mansion House speech — which suggests a communication difficulty across the North Sea. The Mansion House speech so far from "saying nothing" is worth reading in detail. If the Chancellor were to remember that he was originally a logician, he might do more to instruct the Treasury about the difference between a cause of inflation and an indicator. In that case, he might please the Bundesbank by paying more attention to liquidity and credit without going back to targeting the old M3. But it was still immensely better than what is normally said on such occasions.

LETTERS

Difficult to improve on oil exploration licensing

From Mr Robert McKee.

Sir, Your editorial "Protectionism and UK oil" (October 17) advocated the auctioning of all exploration licences. Our experience suggests this would be a mistake.

Under the present system of discretionary awards, government can ensure that maximum effort is expended on each new licence by selecting the company or group of companies prepared to guarantee the fullest and perhaps the most creative work programme.

Government is also better able to set and demand high standards in technical competence, track-record, safety and all the other important criteria it sets for potential licensees.

A further consideration is the amount of cash a company has for exploration. This is finite, so cash spent in the auction process is cash that will not be spent on exploring the licence.

Whichever way you look at it, the present system as practised by successive governments appears to be the most efficient.

It is questionable whether Britain's oil and gas resources would have been developed so successfully and so swiftly if licences had been awarded on the basis of who was able to make the highest bid.

Robert McKee,
Chairman and Managing Director,
Conoco (UK) Ltd,
Park House,
116 Park Street, W1

Social democracy triumphant

From Mr Ian Holliday.

Sir, If Francis Fukuyama is wrong to proclaim the End of History, it is not for the reasons given by Ian Davidson in his article "News of the End of History fails to reach Europe" (FT, October 19).

The conversion of eastern Europe to social democratic principles which we are witnessing today mirrors the conversion of western Europe to the same principles half a century ago. Now that the East has come in from the cold, political debate is being conducted in the middle of a continuum of political ideas stretching from liberalism to socialism. Rarely is it located at either pole.

Thus, debate between, say, Jacques Delors and Margaret Thatcher concerns local readings of social democracy, not fundamental challenges to it. It is not liberalism, but social democracy which is triumphant, and contemporary debate is, in a sense, a series of foot notes to, or elaborations on, that triumph.

Whether this will prove to be the End of History is open to question. However, what is clear is that we have reached a point at which a single cluster of political ideas is predominant and secure from traditional challenges. To restart History requires the articulation of an alternative continuum of ideas stretched between poles which express new conceptions of the human condition.

Ian Holliday,
Channel Tunnel Research Unit,
University of Canterbury

Investors' company accounts

From Mr Eric Heaton.

Sir, "Keeping Sid in the picture" (Lombard, October 6), *highlights the undesirability of* the Department of Trade and Industry's consultative document on the idea that small shareholders need not receive a complete report and accounts and could opt for an abbreviated version. It seems that such a move is justified partly on the grounds that it would cost companies far less money to distribute pieces of A4 paper than bulky annual accounts.

However, the Post Office is planning to increase the cost of carrying A4-size company accounts by as much as 33 per cent. Royal Mail Letters has announced its intention to surcharge all items over A5-size from the date of the next tariff increase. It is believed the surcharge will be in addition to annual increases in tariff.

These surcharges are part of a campaign by Royal Mail Letters to encourage clients to post mail in sizes more easily handled by the Post Office. If Royal Mail Letters really prefers not to handle larger envelopes, the simplest thing would be to free large items from the letter monopoly altogether. This would give users a choice and help Royal Mail Letters divert to private carriers traffic it cannot, or prefers not, to handle.

In days of greater investor protection, the Royal Mail's problems seem a poor reason for encouraging individual shareholders to settle for less than a full set of company accounts.

Eric Heaton,
7 Beechwood Grove,
Shipley, West Yorkshire

Banks' deal with South Africa throws lifeline to apartheid

From Mr John Denham.

Sir, The many organisations — and the many individuals — who attempted to prevail on the banks not to reschedule their South African loans received a fairly standard response. It ran something like this: "We want to see the end of apartheid (of course), but we will do a deal with South Africa because we want to get our shareholders money back as quickly as possible."

This deal triumphantly revealed by South Africa's Reserve Bank Governor Stals gives the lie to this disingenuous argument. Under the rescheduling arrangement, the average repayment will be under $500m a year and will be carefully phased to give South Africa the maximum relief when other debts fall due in the next two years. Yet evidence presented to United Nations hearings in September showed that South Africa could generate enough foreign exchange to repay at least $1.65bn a year on the "frozen" loans.

If NatWest, Barclays and other banks sign the deal, they will have extended a $1.2bn-a-year lifeline to apartheid for the purchase of arms, oil and other strategic imports.

The terms of the last rescheduling deal in 1987 has allowed a near doubling of South Africa's defence expenditure. The latest deal gives South Africa another breathing space and reduces the growing economic pressure for change.

John Denham,
War on Want Campaigns Ltd.,
PO Box 4, SE1

No polarisation between the visible and the invisible exports

From Mr Richard Mason.

Sir, Peter Brighton (Letters, October 17) is less than fair to Simon Holberton ("Services have been success story of the 1980s," October 12).

Mr Holberton clearly defined his use of the term "services" to include interest, profits and dividends. He went on to explain why there will be a decline this year in net income from these sources as the cost of funding the large visible trade deficit bites hard. It would have been clearer had Mr Holberton used the term "invisibles" — and these are a success story.

The private sector has turned in an invisibles surplus in almost every year since records began in 1794. For the past four years, according to figures published by the OECD, Britain has enjoyed the largest surplus of any country from current invisible transactions.

Lest I invite criticism as an interested party, I will add that the British Invisible Exports Council (BIEC) also believes that it would be folly to rely solely on invisibles. We are on record as giving evidence to the same House of Lords Committee referred to in the article, and elsewhere, as advocating the need for a strong complementary visible trade sector.

Any polarisation in public perceptions of relationships between services and goods, between "surplus" invisibles and "deficit" visibles, would be unhelpful. It would also divert attention from the essential task of correcting the imbalance in our balance of trade.

Richard Mason,
Executive Director,
BIEC,
Windsor House,
39 King Street, EC2

FINANCIAL TIMES
Monday October 23 1989

Janet Bush on Wall Street

Vertically integrated problems

APPARENTLY, some people never learn.

The first rumours that an arbitrageur "arb" was in trouble emerged last Tuesday and centred – probably unfairly – on Mr George Kellner who acknowledges he has lost a packet on his substantial holding of UAL shares, but no more than other arbs.

What is more startling is that Mr Kellner (and lots of his fellow arbs) also took a bath on October 19 1987, because of losses on substantial holdings of Allegis.

That, of course, was the name taken by the parent company of United Airlines for a brief while until ridicule and a revolt by investors forced the board to readopt the name UAL.

The ingredients of the latest sell-off to rock the equity market were quite different from those which caused the meltdown of 1987.

On October 13, there was a frantic rush by arbs to get out of outrageously overpriced takeover stocks. In 1987, money surged out of everything on the orders of quantative computer models in portfolio insurance strategies.

But whatever the combustion materials, you just get this queasy feeling that some things never change and nobody ever learns. By the end of last week, 120 points of the 190-point plunge had already been recouped.

Since the 1987 Crash, there has been endless debate about how the market structure can be made safer and more servicable to the investment community in the broadest sense. There has been fiddling with margins, with regulatory oversight, with crisis management but what has actually changed?

In a wild 20-minute period last Tuesday, stock index arbitrage plays interlinked the futures and stock market in death-defying swings which took the Dow Jones Industrial Average 40 points lower in 10 minutes and then 40 points higher in the next.

No wonder that financial journalists regularly call this kind of volatility a "roller coaster ride". It's a cheap thrill which leaves you dishevelled, nauseous and drops you off exactly where you started (unless you are a small investor who panics fatally and throws himself out of the car during the ride).

Programme trading never stopped and will not while it is in the financial interest of investment banks, commercial banks and exchanges themselves to pay homage to the institutional investor.

The fundamental tension in the coexistence of a retail and institutional market within one system, which is much more relevant than programme trading itself, remains.

Mr Laszlo Birinyi, formerly the leading equity analyst at Salomon Brothers and now running his own consultancy, says: "This system was never intended to handle this huge amount of stress. It is like going to the corner butcher on a Thursday and asking him to provide 50lb of beef for a huge party on Friday night."

The perennial obsession with earnings over any other consideration (like the future) has meant a management style in many Wall Street companies which is often alarmingly short-term.

When one source of earnings slumps, shut the department down and pour resources into the next hot area. Forget about business cycles, forget about a well-balanced diversified spread of business and therefore risk.

After the 1987 Crash, commission revenues from securities trading slumped. Securities houses uniformly cantered into investment banking and highly profitable it was too – for a while.

Now they face a real crisis in the junk bond market and perhaps even a stubborn unwillingness among commercial banks to provide financing. What now? Fire the mergers and acquisition boys and reopen the mortgage securities department?

On the morning of the mini-Crash of October 13, a top executive at Salomon Brothers talked enthusiastically about prospects for the firm's new "vertically integrated high yield department."

Less than seven hours later, news that financing for the UAL buy-out had fallen through hit the news tickers. Every issue whose inflated value was based on hopes of being taken over and enjoying the "financial discipline" of enormous debts into the next decade, nosedived and the junk bond market was under water.

Will vertical integration survive that? Will people ever learn?

Thatcher in unprecedented challenge over declaration on South Africa

UK at odds with Commonwealth

By Robert Mauthner and Roger Matthews in Kuala Lumpur

THE SHARP division between Britain and the rest of the Commonwealth over South Africa was underlined last night when Mrs Margaret Thatcher, the British Prime Minister, distanced herself from key sections in the official communique on South Africa.

In an unprecedented move which irritated other conference delegates, Mrs Thatcher and Mr John Major, her Foreign Secretary, issued a statement elaborating on Britain's differences with the rest of the Commonwealth.

Although Commonwealth leaders yesterday unanimously committed themselves to "the total eradication" of apartheid, Britain remained isolated on its opposition to the use of sanctions to attain that goal.

A declaration entitled "South Africa: the way ahead," adopted by the heads of government at their northern Malaysian island retreat of Langkawi, contained four important paragraphs which Britain refused to endorse.

The South African Government has given approval for the first African National Congress rally in 29 years. The decision was made as Commonwealth leaders were differing over policy towards South Africa. The move is likely to reinforce the British view that Pretoria is initiating changes. **Page 2**

Some other sections of the joint declaration were also challenged by the British statement. Britain's explanation for this unusual step was that the Prime Minister wanted to set out her position in greater detail.

Surprisingly, given Mrs Thatcher's views on the subject, Britain had put its name to a paragraph in the Commonwealth Declaration saying that the heads of government agreed "that the only justification for sanctions against South Africa was the pressure they created for fundamental political change." The official British position has always been that sanctions have not been instrumental in bringing about political change.

In the next paragraph, Britain refused to support a statement, agreed by all other members, which said the Commonwealth "acknowledged that the impact of sanctions had begun to influence the policies of the South African regime."

Perhaps to sort out the confusion caused by these apparent contradictions, Mrs Thatcher's and Mr Major's post-Langkawi statement stated that sanctions contributed to "poverty and misery" in South Africa, whereas Britain's efforts were directed to relieving such poverty and misery throughout Africa.

Mrs Thatcher also supported a paragraph in the joint declaration which said that "this was not the time to consider any relaxation of existing sanctions and pressures" and that all existing sanctions and measures should be maintained pending evidence of clear and irreversible change in South Africa.

The remaining three sections of the joint declaration to which Britain refused to subscribe dealt with the proposal by Mr Bob Hawke, the Australian Prime Minister. They call for new financial sanctions, the establishment of an independent agency to review Pretoria's financial links, and the continuation of the special Foreign Ministers Committee on sanctions, which Britain has always refused to join.

Mr Major saw the main significance of the joint declaration in its recognition that significant changes in South Africa appeared to be under way. He said a new addition to the declaration was that the Commonwealth as a whole had accepted that the purpose of sanctions was not punitive, but to bring Pretoria to the negotiating table with black South African leaders.

Why Britain stood alone, Page 2

Brady urges closer markets co-ordination

Brady: urges co-ordination

FEDERAL regulation of financial and securities markets needs to be co-ordinated more closely, according to Mr Nicholas Brady, the US Treasury Secretary, in his first public comments since the slump in Wall Street share prices 10 days ago, writes Peter Riddell, US Editor, in Washington.

Mr Brady, who is due to testify to Congress on Thursday, at the weekend defended the conclusions of the presidential investigative commission which he chaired into the 1987 stock market crash.

Among his main recommendations then was a single agency, probably the Federal Reserve, to co-ordinate regulation of all financial markets. Mr Brady says his report remains "a guide to what happened then and what you might need to do now.

"The more progress we can make towards bringing regulation into one place, or to bring it into a high degree of co-ordination, the better off we're going to be at it," he argued.

But this proposal – based on the view that securities and futures markets increasingly function as one – has so far been successfully opposed by the futures markets.

Mr Brady, who closely monitored market movements a week ago, said senior Administration officials had learned from the 1987 crash, were better prepared to co-ordinate their actions this time and had more sophisticated means of monitoring markets.

Asked whether the recent market gyrations strengthened the need for reform proposals, Mr Brady said the Treasury did not yet have "the information to come to the conclusion that a lot of changes absolutely have to be made. We're getting the reports in now on the statistics and we'll be looking at them and coming to some sort of conclusion before the [congressional] hearing."

British economic policy faces fresh test

By Patrick Harverson, Economics Staff, in London

THE UK GOVERNMENT'S commitment to using high interest rates to fight inflation and support a weak sterling will be tested to the full tomorrow when the September trade figures are released.

News of Britain's trade position will come on a day when the Government faces a House of Commons debate on its handling of the economy. The opposition Labour Party is likely to exploit differences over monetary policy between Mr Nigel Lawson, Chancellor of the Exchequer, and Mrs Margaret Thatcher, the Prime Minister, backed by her personal economic adviser, Sir Alan Walters.

City of London analysts have warned that a repeat of the surprise £2bn ($3.1bn) August deficit could lead to sharp downturn in London share prices and send sterling into freefall. The Government would be likely to order the Bank of England to support the pound if the trade data sparked off heavy selling of sterling.

However, there is no guarantee that intervention would stem the currency's decline. The Bank spent an estimated $4bn in late September and early October in a vain attempt to stop the pound's slide. The pound was selling for more than DM3.06 before the August trade data was released on September 27. It subsequently tumbled through the crucial DM3 barrier and by last Friday, sterling stood at DM2.9450.

If Bank intervention failed to hold up the pound, the Government would face a stark choice. Either interest rates would have to be raised to 16 per cent to stave off a major fall in sterling, or the pound would have to be allowed to find its own level on the currency markets.

Mr Lawson said at the Conservative Party conference two weeks ago that he would not allow the pound to be devalued. Since then both the Chancellor and Mrs Thatcher have said interest rates may have to go higher to combat domestic inflation and provide support for sterling.

Another rise in the cost of borrowing would be a serious blow to business confidence. City of London analysts fear that such a move could push the UK economy to the brink of recession.

The Confederation of British Industry's quarterly industrial trends survey, to be published tomorrow, is expected to confirm that the output expectations and investment intentions of UK companies have already been seriously damaged by high interest rates.

There is no doubt that the London financial markets will open this morning in apprehensive mood. Economists at the big London securities houses have forecast an improvement in the current account position in September – the consensus is for a deficit of about £1.6bn.

Soviets request Western gas expertise

Continued from Page 1

ity study includes Norsk Hydro, Norway's largest publicly quoted company.

Norsk Hydro, three Finnish companies – Wartsila, Imatra Voima and Neste Oy – and Conoco Norway, the Norwegian unit of US-based Conoco, are trying to reach a joint agreement

Mr Pauli Jumppanen, a Wartsila executive, said: "The Soviet Union has given to understand that its goal is chiefly to acquire the offshore technology it needs through Western investments. In such cases it will be a question of large compensation projects where the investments are repaid through long-term oil and gas deliveries, or joint ventures with Soviet organisations."

He refused to give details of discussions between the consortium and the Soviet Union but suggested that it would be some time before a concrete deal could be signed.

Norsk Hydro has been in talks with the Soviets for a long time on a number of projects ranging from minerals mining to offshore developments. Mr Svein Breivik, head of Hydro's international division, said, "We are interested to see if there is a basis for feasible Soviet activity in the [Soviet] Barents Sea."

Mr Mikhail Gorbachev, the Soviet President, is to visit Finland this week, and it being suggested that a joint agreement for the development of a Soviet offshore gas field may be signed then.

Failure of UAL buy-out 'a set-back'

Continued from Page 1

However, it is likely to try to revive its efforts to acquire a direct stake in Sabena, the Belgian airline.

BA and KLM announced last summer plans to buy a 20 per cent stake each in Sabena.

The Sabena negotiations appear to have stalled while both BA and KLM, which has bought a stake in Northwest Airlines of the US, have been embroiled in their respective US manoeuvres.

Janet Bush in New York writes: UAL said yesterday that it could not confirm that management representatives and officials of the pilots' and flight attendants unions had met at the weekend as planned.

Ms Patricia Friend, president of the flight attendants' union, was quoted at the weekend as saying that the three groups had put the finishing touches to a revised buy-out proposal which would be presented to the board today.

French spellbound by language test

Continued from Page 1

Curiously, the spelling championship is booming at a time when there is a flood of calls for a reform and a simplification of French spelling.

Everybody knows that French spelling and grammar are extremely complex, and in some respects quite illogical. Many people argue that the complexity and the illogicality are serious handicaps to the education process.

The statue of Descartes is one of six in the Grand Amphitheatre but he had nothing to do with the writing of the French rule-book.

Whether the complexity of French grammar has any bearing on educational achievement may be debatable. Nevertheless, the dilemma of how to raise the performance of the French school system is at the forefront of political debate in France.

The debate comes at a time when the Government is attempting to double the proportion of children reaching the Baccalaureat, the prestigious school-leaving examination, from 40 per cent to 80 per cent by the end of the century. The problem is most acute for those least educated.

In 1979, the Government claimed there were no longer any illiterates in France. In the past 10 years, however, there has been a much greater realisation throughout Europe that there subsists a functional illiteracy which is less absolute than complete analphabetism, but which involves real difficulties in either reading or writing or both.

WORLDWIDE WEATHER

		Y'day midday °C	°F			Y'day midday °C	°F			Y'day midday °C	°F			Y'day midday °C	°F
Ajaccio	S	20	68	Dallas		–	–	Madeira	C	23	73	Prague	S	22	72
Algiers		–	–	Dublin	F	13	55	Madrid	S	22	72	Reykjavik	F	5	41
Amsterdam	S	19	66	Dubrovnik	S	23	73	Majorca	S	25	77	Rhodes	S	21	70
Athens	S	20	68	Edinburgh	F	13	55	Malaga	S	23	73	Rio d'Janeiro		–	–
Bahrain	S	29	84	Faro	C	22	72	Malta	F	22	72	Rome	S	21	70
Barcelona	S	23	73	Florence	S	17	63	Manchester	R	11	52	Salzburg	S	21	70
Belfast	F	12	54	Frankfurt	S	21	70	Melbourne	F	16	61	S'Francisco †	C	16	61
Belgrade	S	22	72	Geneva	S	20	68	Mexico City		–	–	Santiago		–	–
Berlin	S	21	70	Gibraltar	C	21	70	Miami †	F	16	61	Seoul	C	18	64
Biarritz	S	28	82	Glasgow	C	12	54	Milan	F	14	57	Singapore		–	–
Birmingham	R	14	57	Guernsey	C	17	63	Montreal †	R	4	39	Stockholm	S	13	55
Blackpool	R	11	52	Helsinki	F	12	54	Moscow	R	9	48	Strasbourg	S	22	72
Bombay	S	33	91	Hong Kong	S	26	79	Munich	S	21	70	Sydney	S	25	77
Bordeaux	S	24	75	Innsbruck	S	18	64	Nairobi	F	29	84	Tangier	S	27	81
Boulogne	F	22	72	Inverness	F	12	54	Naples	S	23	73	Tel Aviv	S	26	79
Bristol	R	15	59	Isle of Man	R	13	55	Nassau		–	–	Tenerife	S	27	81
Brussels	S	21	70	Istanbul	S	18	64	Newcastle	R	13	55	Tokyo	R	18	64
Buenos Aires		–	–	Jersey	C	18	64	New Delhi	S	30	86	Toronto †	S	4	39
Budapest	S	21	70	Johannesburg	C	11	52	New York †	C	8	46	Tunis	F	23	73
Cairo	F	26	79	Las Palmas	S	30	86	Nice	S	20	68	Valencia	F	22	72
Cape Town	C	15	59	Leeds	R	11	52	Nicosia	S	23	73	Venice	Fg	12	54
Cardiff	R	15	59	Lisbon	F	19	66	Oporto	C	16	61	Vienna	S	17	63
Chicago †	F	0	32	Locarno	S	18	64	Oslo	S	15	59	Warsaw	S	21	70
Cologne	S	22	72	London	C	17	63	Paris	S	23	73	Washington		–	–
Copenhagen	F	16	61	Los Angeles †	C	18	64	Peking	S	23	73	Wellington		–	–
Corfu	S	24	75	Luxembourg	S	18	64	Perth	F	19	66	Zurich	S	19	66

Nato due to launch study

Continued from Page 1

nuclear posture. The CFE talks aim at establishing an East-West balance in heavy land weaponry and possibly aircraft, at levels below current Nato strength.

Nato officials said modernisation already under way in nuclear artillery weapons, with a new 155m howitzer shell about to be introduced with an extended range of 30km, could enable the alliance to cut up to half its stockpile of about 1,600 nuclear artillery warheads.

However, British officials said Nato should "play its hand" carefully with announcing cuts, and should maximise pressure on the Soviet Union to reduce its own, larger stockpiles. There is disagreement between the US and some allies over the need for battlefield nuclear artillery at all.

Ministers are expected to be brought up to date on US progress in choosing a system to replace the Lance missile, deployed in Europe by the US and allied armies. A decision by the Pentagon is expected by the end of this year.

THE LEX COLUMN

Small is not so beautiful

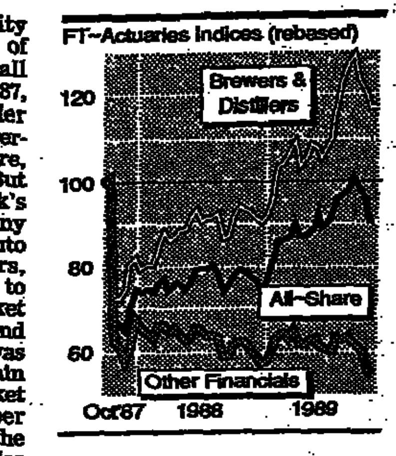
One part of the UK equity market with a strong whiff of 1987 at present is the small companies sector. As in 1987, the prices of many smaller stocks have suffered exaggerated mark-downs. As before, too, liquidity has vanished. But even before the past week's upheavals the small company effect had apparently gone into reverse. In previous years, small companies had tended to outperform big ones in market terms. But already by the end of September the picture was quite different: the capital gain on Unlisted Securities Market stocks had averaged 13 per cent against 18 per cent for the Hoare Govett small companies index – which takes in the smaller main market stocks – and 28 per cent for the FT-SE proper.

It is natural to suppose that this is in line with the earnings fundamentals. Anecdotally, the impression is that more small companies have been issuing profit warnings of late than large ones. Gearing among small companies may perhaps be higher. The sector must have an above-average exposure to the UK economy. It is also weighted towards some danger areas; 12 per cent of the USM by value consists of property companies, compared with 3 per cent for the market as a whole.

More generally, it might be expected that in the course of an extraordinarily long upturn in the economy small companies will have prospered in niches overlooked by bigger competitors. In the downturn the big companies may devote more attention to smaller markets, so that – in Lord Weinstock's phrase – a niche becomes a tomb. But we do not yet have the earnings data to substantiate that. And it is worth recalling that in the period 1979-82, dividend growth from small companies very nearly matched the market average.

For funds invested in small companies, the best response at present seems to be fatalism. It has been suggested before now that part of the reason for the undervaluation of small companies is their lack of liquidity. If the fundamentals are right, the shares will bounce back. If not, investors are stuck with them anyway.

FT-Actuaries Indices (rebased)



Sectors

Eat, drink and be merry, for tomorrow the market plunges. As London's fund managers awoke to the aftermath of the hurricane two years ago, those blessed with 20/20 foresight would have opted to concentrate their holdings on literally liquid assets. Brewing and distilling has been the best performing sector since October 15 1987, showing a near 18 per cent rise against an 8 per cent fall in the All-Share. Well behind, but still in second place, has been the food manufacturing sector, which has risen by just under 8 per cent.

Food and drink have obvious defensive qualities and the latter sector has received a further fillip from the turnround in the fortunes of Guinness, which is the second best performing Footsie stock over the period (Scottish & Newcastle is fourth). However the conglomerate sector's 5.9 per cent rise – the fifth best – seems to show that some companies, at least, can diversify better than investors who just attempt to replicate the index. This holds good regardless of Sir James Goldsmith's onslaught on BAT, which is included in the miscellaneous sector.

Even the most prescient fund managers would have suffered in one sense. The worst performing sector of all since before the crash – other financials – includes the shares of independent fund management groups themselves. That sector's 46 per cent decline, however, only just pips textiles (down 43 per cent), where profits have been squeezed by a combination of rising imports and a shaky retail market. And while the poor record of stores (down 32 per cent) might have been predictable, it might have been harder to pick out publishing and printing (down 29 per cent) as a dog, given the talk that prevailed in 1987 of the publishing revolution. Although it has recovered recently, Maxwell Communications is still the worst performing Footsie stock since the hurricane, with Reed International not far behind. Determined contrarians will doubtless be piling into printing, stores and publishing as fast as they can.

Green effect

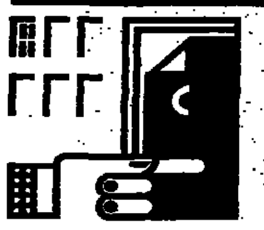
One does not have to vote for the Green party or manage an ethical fund to appreciate that growing environmental consciousness will have an effect on businesses and investment decisions in the 1990s. It is important to separate the green consumer effect, in which purchasers switch to healthier or more ideologically sound products, from the impact of governmental restrictions designed to cope with issues such as global warming.

The former is the consequence of rising incomes, as wealthy consumers look to improve the quality of their lives. Green consumers will inevitably be prone to fads and scares, as the egg industry has discovered. This may require, more than anything, the ability of manufacturers and retailers to be quick in responding to trends. Cynicism will develop as the more spurious claims for environmentally sound products are unmasked; but a company which can establish a genuine reputation for greenness will have an advantage, as Body Shop has demonstrated.

The impact of environmental policies on individual industry sectors will be wildly divergent, as the latest green circulars from Phillips & Drew and Paribas suggest. The chemicals industry, which has a terrible public image, will face rising costs and a constant pressure to produce new products. And environmental consciousness can only be bad news for insurers in the long run. But building materials companies may benefit as pressure to prevent the opening of new quarries increases the value of old ones. And the construction industry will gain from an upsurge in expenditure on infrastructure and from the clean-up of old buildings and projects.

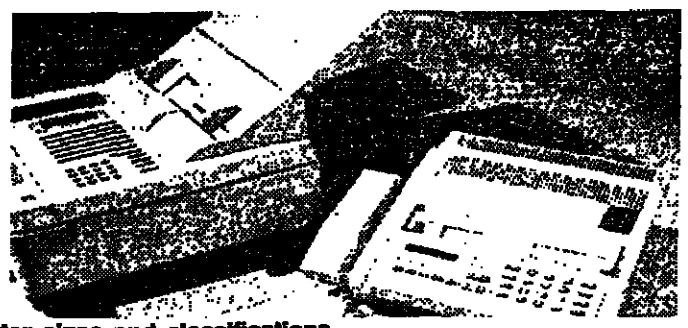
The rewards for the right companies could be substantial. According to Paribas, the 10 leading economies spent 0.7 per cent of their gross national product on environmental protection in 1987. Assuming an increase to 1.5 per cent (the European Community target, but well below the current level achieved by the Netherlands) by 2000, Paribas reckons the total European environmental market will then be worth $96bn.

SECTION III
FINANCIAL TIMES
SURVEY



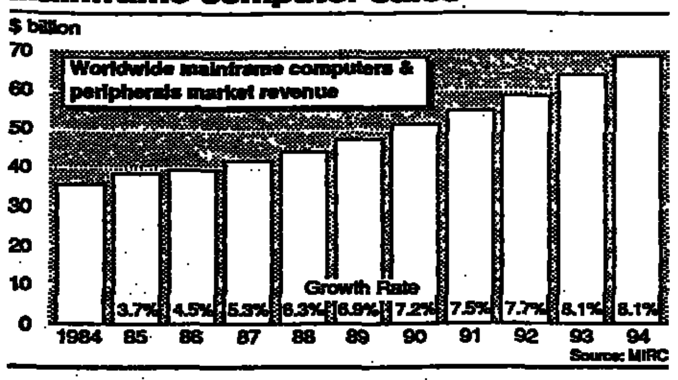
As more companies apply information technology, there is a growing awareness among senior managers of the need to develop a clearer overall strategy for the more effective use of computerised equipment, as **Della Bradshaw** reports here.



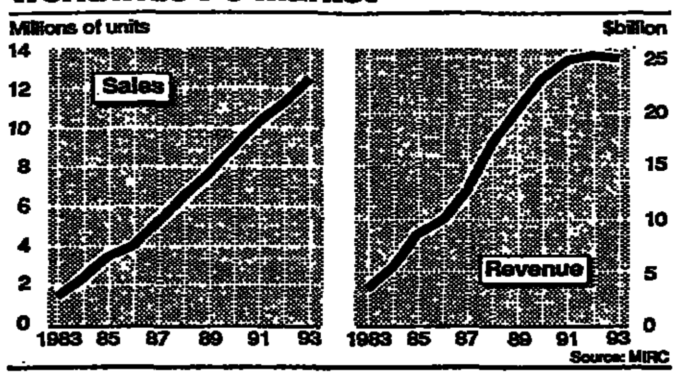


As various office systems become more closely integrated, the demarcation lines are also blurring between computer sizes and classifications.

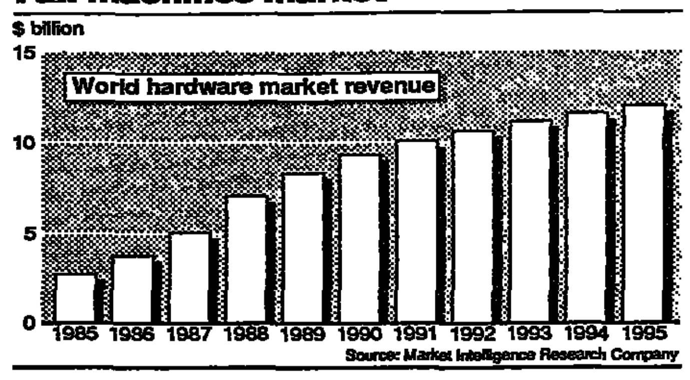
Mainframe computer sales



Worldwide PC market



Fax machines market



Technology in the Office

Big impetus for change

INFORMATION technology will undoubtedly provide the biggest single impetus for change in the office environment between now and the year 2000. It will change the kind of work we do and how we do it. Even where we work will come under review.

Most companies now realise that the way information is manipulated is likely to be one of the most effective tools in making their businesses more competitive, and to do that they need information technology equipment. Badly installed, electronic gadgets can prove costly, ineffective and even dangerous — and result in unhappy, discouraged staff.

The sea-change in company attitudes has largely been brought about by the personal computer (PC). Until the early 1980s, most computers were kept behind locked doors in icy rooms with people who spoke a language incomprehensible to the average office worker. Out of the room emanated, on a weekly or monthly basis, pay slips or document confirmation forms. When anything went wrong, it was the computer's fault. Then, the most advanced office technology was the electric typewriter and the rented photocopying machine.

Today, workstations and PCs are widespread, and senior managers have long ago stopped boasting that they have "never touched a keyboard." By the end of the 1980s almost one-in-three office workers will have a personal computer on their desk, predict consultants Butler Cox, and that will grow rapidly to one per desk in the mid-1990s.

The challenge for companies now, argue equipment manufacturers, is to accept the need for office technology, and make it work for them. In particular, companies must develop an overall strategy, which has been sadly lacking in the past.

"The problem is that technology doesn't appear in the office overnight. You don't go home one evening and discover when you get back that all the typewriters have been replaced by word processors," says Mr Paul Evans, group manager for networks marketing at computer manufacturer Digital Equipment. "Because it arrives a bit at a time, it is difficult to develop an overall strategy."

As a result, he believes that the *ad hoc* growth in office technology equipment has left managers confused, both about the technology itself and its implications for the business. But if they are to develop a technology strategy to follow the company's business plan in the future, they have to "run ahead."

"It's not too difficult to see what companies like Digital Equipment and IBM will be doing in the next five years," says Mr Evans. "We won't have infra-red keyboards and laser networks by then, for example."

So, what office technology will be installed in the next five years, and what facilities will companies need to take advantage of it?

Perhaps the most significant development will be in the area of desk-top PCs or workstations. They will become more powerful and much quicker to use, and considerably cheaper to buy. Even the traditional 'dumb' terminal, connected to the corporate mainframe and generally used for clerical tasks, is likely to be superceeded by the workstation with its individual disk storage system. In addition, powerful systems will appear on the desks of staff formerly loath to use the equipment — the chairman or managing director, for example. One of the biggest growth area in workstations looks set to be in executive information systems (EIS), which allow company bosses to dip into the corporate database and extract and analyse key information.

Another potential growth area is desk-top publishing, where documents are drawn out on a computer screen and printed on a laser printer. Desktop publishing systems are already used for printing in-house newsletters and technical documentation, but as the technology develops — particularly in colour printing — they could even be used for printing the office stationery.

The spread in workstations will bring numerous headaches for the office planners. More and more companies will realise that they cannot simply buy a couple of PCs and drop them onto desks. Today's personal computer with a colour screen, for example, requires up to three times as much electrical power as a data terminal with a monochrome monitor. And a laser printer needs up to five times as much power as its dot matrix predecessor, says Butler Cox, in its report, *Information Technology and Buildings*.

The next generation of equipment will require a similar leap in power consumption. Mr Roger Camrass of Butler Cox relates the anecdote of one company in the City of London which discovered it would have to move buildings in order to support the number of computer terminals it needed. It simply did not have room to install the "mini power station" it needed in its basement.

In the future that will become the norm rather than the exception. The electric power requirements of office equipment will rise in the early 1990s to be four times what it is today. And as more of the vital company information is held on computer, and more offices become dependent on its use, there will be a growing need to provide a back-up power source in case of mains power failure.

As more power is used, so the amount of heat dissipated goes up as well. And that means the need for more air conditioning and a more sensitive heat control. And the forward planning does not end there. Perhaps even more important is the cabling needed to install these desktop machines — "most people are just trying to deal with the cabling which has been produced by the last explosive growth in terminals," reports Mr Camrass. "Now they are faced with this prospect of a mainframe on a desk."

Such a technological animal will require powerful wiring systems, argues Mr Camrass. Although laptop computers and mobile phones can operate on radio and infra-red frequencies, the capacity needed to send video images from desktop to desktop could not be dealt with in this way. Instead it will need high capacity broadband wiring. And then there is still the main computer centre.

The bad news for the office developer is that up to ten per cent of the space in modern buildings could be required for technology — ducts for computer or telephone wiring, main computer rooms which are bomb-proof and specially cooled, telephone exchange facilities, underfloor cabling and so on. This poses particular problems for companies building speculatively — when they do not know who will occupy the building before construction work begins.

If building companies take the need for specially allocated 'information technology' space into account, the price per square foot of office space will inevitably shoot up. If not, companies moving into the buildings could find themselves facing enormous bills — and disruption — for installing ducts and wiring that in what is supposed to be a modern office.

Professor Franklin Becker, of Cornell University, believes that in the US, building contractors have generally been more responsive than in Europe to the needs of business: "On the whole, the US market has been more responsive, but that is because US clients have been more aggressive," says Prof. Becker. "They insist that when buildings are put up they are suitable for their requirements."

Top executives in the US are well aware of the problems, according to recent research by the US furniture manufacturer Steelcase. The report showed that 77 per cent of senior executives and 87 per cent of interior designers anticipate that telecommunications and computer needs will impact heavily on facilities design in the future, (see page 2). They ranked it even more important than space costs, health and safety legislation and costs of office furniture and equipment.

In the UK, the concern of chief executives is less clearly defined. In a report conducted by the National Business Equipment Survey, researchers demonstrated that although the chief executive might be happy in his office environment, his or her staff may not be so content. The survey revealed that five times as many office workers were dissatisfied with the function of their offices as their chairman.

As company executives become increasingly aware that a pleasant and effective office environment will be a factor in helping them maintain their skilled staff into the 1990s, the picture could change quite rapidly.

Butler Cox, London, tel 831 0101; National Business Equipment Survey, London, tel. 483 2681.

More companies are seeking facilities management contracts, says **Della Bradshaw**

Ways to cut costs and boost efficiency

WHO CLEANS your offices? There is fair chance it will be a contract cleaning agency, employed to vacuum the carpets and polish the desks.

Office cleaning is one of the many tasks that companies now pay outside agencies to carry out for them. Catering, security, vending machines . . .even plant-watering are jobs trusted to outside companies.

Businesses are turning to third parties to take on the burden of maintaining office facilities

And as electronic office equipment – computers, telephone exchanges, copiers, heating and lighting systems – become ever more complicated and costly to install and maintain, a growing number of companies are turning to third parties to take the weight off their shoulders in this area as well.

The value of these facilities management (FM) contracts for computer installations will be worth £400m this year in the UK alone. Three years ago the figure was negligible.

And there are plenty of good reasons why companies choose to tread the FM route rather than go it alone.

To begin with, a sprocket manufacturing company wants to design, make and sell sprockets. It does not want to become a computer installation company, wiring personal computers into its offices and workstations into its design centre and loading inventory control software in the factory mainframe.

A more recent factor has been the skills shortage. With companies finding it increasingly difficult to employ suitably-qualified staff, they are passing the problem on to FM companies instead, says Mr Peter Falconer, marketing director of the facilities management division of the Hoskyns group, of London.

Mr Falconer believes companies such as Hoskyns find it easier to keep skilled staff because they offer them more "exciting" projects. In companies the more interesting tasks – upgrading the software, or dealing with the computer when it goes down, for example – are usually relatively rare events. Most of the time is spent doing routine maintenance work or waiting for something to go wrong. Upgrading software and dealing with crises are their bread and butter work of FM computer companies.

Facilities management companies are proving particularly popular in the energy management field, where computer-based controllers monitor heating, ventilation and air conditioning and achieve the desired conditions with the minimum energy input. That is because they can alleviate one of the most frequent problems associated with such systems – how to interpret the data that is fed to the operator by the sensors.

This control can often be done be done remotely – as it can with telephone and computer systems – by connecting the sensors to a main control centre over the telephone line.

Perhaps more importantly companies are turning to FM because it can save them money. Firstly, it allows them to do away with a fixed cost (the new telephone exchange, computer system or air conditioning system). Instead they spread the cost over several years – three, five or seven, say.

And because new information technology equipment seems to appear on the market even more frequently than higher interest rates, opting for FM contracts can re-assure companies that they can drop out of the IT race, and let a contract person keep in touch on their behalf.

Secondly, they use extra services only when necessary – they do not have the expense of installing the equipment to deal with the peaks. So, if a company making Christmas decorations needs a higher level of computing power to print invoices in the run up to the festive season, it can negotiate to do that with the FM company. It will not need to carry the expense of the extra computing load all year round.

Then there are the savings accrued through the economy of scale in which the FM companies deal, in both equipment and staff. They can, for example, afford to buy mainframe computers and divide them up so that different parts are used for different clients. They can also employ groups of staff with a specific expertise which a number of clients may need.

That said, signing an FM contract is not cheap. Take the expanding Lewis's group of department stores as an example. It has employed Electronic Data Systems (EDS) to run its telecommunications and computing facilities contracts for seven years, plus a run-in period of five months.

For facilities to run its twelve stores and associated administrative centres it will pay £10m over the lifetime of the contract. Included in that are certain software upgrades, but any major investment and the contract would have to be re-negotiated.

The Lewis's contract typifies one of the main reasons why companies opt for FM - they are at a crossroads in their information technology handling. Lewis's used to do its data processing on the mainframe belonging to British Sugar (then its parent company).

When the company was bought out it was faced with the dilemma of whether to install its own computer or go for another option, such as FM. As its business plan included expanding the number of its stores (initially from 10 to 12), it was decided to opt for an FM company that could support it in that aim.

Despite the obvious advantages, FM is still an emotive issue. In particular, there are two ideas that companies have to come to terms with before they opt for FM, says Mr David Andrews, partner in charge of the FM arm of Anderson Consulting.

The value of facilities management contracts for computer systems in the UK alone is worth £400m

The first is the belief that information technology is too important to the company to leave it in the hands of outsiders. The second, that the information is too valuable to let outsiders have access to it.

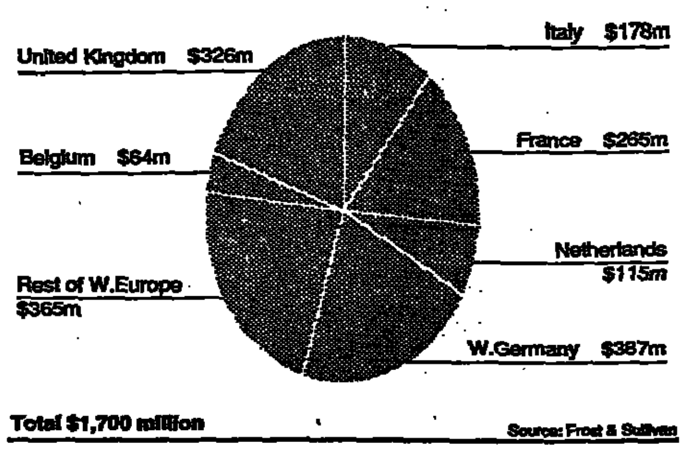
Mr Andrews counter-argues that the data security employed by most companies is well below that enforced by FM companies.

The Anderson group, for example has at least one data centre which could withstand a terrorist attack.

And, because there is a contract between the two companies, there are grounds for redress if data is lost or stolen. If a hapless employee accidentally wipes a computer database clean there is little that can be done about it.

Office building controls & management

Systems market in Western Europe - 1992



Total $1,700 million

Source: Frost & Sullivan

Facilities managers' growing role

IN the US, 90 per cent of top executives report some form of facilities management (FM) in their organisations, according to the latest Steelcase Office Environment Index.

Around 63 per cent of these executives view FM as a form of asset management, but only 51 per cent of facilities managers think their senior management would agree with that point of view, *writes Michael Wiltshire.*

The report shows that senior managers may not be aware of how much responsibility is shouldered by facilities managers – almost three-quarters of these managers claim they have "a great deal" or "some" control over office automation installation, yet only 47 of top executives think so.

Facilities managers mainly see their responsibilities as including space-planning, relocation and renovation of facilities and long-range planning.

All managers agree, however, on the issues which will have the greatest impact on facilities design in the next five years: all groups put telecommunication and computer needs in first place among the main issues.

Space-costs come second; health and safety regulations come third; costs of office furniture and equipment, fourth; while the emergence of the intelligent building came fifth. Worker desire for privacy was rated the sixth issue.

The survey shows that 78 per cent of office workers use a computer – and computer-usage amounts to four hours of the average workday. Among the points identified by workers as being "very important" to productivity were:

☐ Proper lighting – 92 per cent.
☐ Comfortable heating and air-conditioning – 81 per cent.
☐ Adjustable and comfortable seating – 73 per cent.
☐ Enough worksurface area to spread out or display work – 72 per cent.
☐ Adequate storage and file space – 65 per cent.
☐ Sufficient privacy and low levels of noise – 59 per cent.
☐ Attractive working areas – 57 per cent.

Offices that think: $1.7bn market for environmental controls

BEAUTY may be be only brick-deep when it comes to an office building, but a new report anticipates an increasing number of "buildings with brains - or intelligent buildings" - will dot the skylines of London, Paris and Bonn, served by a $1.7bn European market linking-up telecommunication and various kinds of controls.

The report,* by Frost and Sullivan, the market research group, says that the incorporation of an integrated system of telecommunications, office automation and building services management is now "on the horizon." Four main products groups are identified: conventional and advanced controls; energy management systems and integrated building management systems.

There has been an accelerating trend to integrate such areas as heating, ventilation and air-conditioning, fire alarms and access controls. This, the report concludes, will boost the market (worth $1.26bn, two years ago) by an average of 6.2 per cent a year to $1.7bn by 1992.

Frost & Sullivan, London, telephone: 01-730-3343.

Developments in copiers

Era of digital technology

The largest percentage growth over the next year is expected to come from the mid-range copier market, reports Julie Harnett

ACCORDING to the market researchers, Dataquest, 1,109,300 plain paper copiers were sold in Western Europe during 1988 – an increase of 10 per cent over the previous year.

Of those units, 70 per cent were replacement machines, the 30 per cent of new sales being primarily as a result of greater decentralisation, with one machine per office being the trend where once it was one per building.

Dataquest estimates that UK placements in 1988 totalled 156,400, representing an increase of 7.7 per cent. However, in the estimation of NBES (National Business Equipment Survey) it was 110,800, representing a growth rate of 18 per cent.

One reason for the discrepancy may be that one company concentrates mainly on vendor and distributor sales whereas the other refers to end-user sales. Be that as it may, according to Barbara Angius, European programme manager at Dataquest, companies now tend to replace their copiers every three to five years, whereas the norm, not so long ago, was five to seven years.

The largest percentage growth over the next year is expected to come from the mid-range market, i.e. from fully featured copiers offering between 30-60 minute speeds, whereas in the past year growth has come from sub-25cpm machines.

Despite the advent of the PC and high-speed laser printers, demand for copiers, then, looks set to continue, but with competition increasing across all sectors and with digital technology, colour and integrated desktop publishing/copyprinting systems being key indicators of the way the industry is moving.

That said, purchasers clearly have their feet firmly on the ground when specifying their requirements, with higher productivity taken precedence over higher technology, with high speed, auto duplexing (doubled-sided copying), easier operator controls and better paper-handling being top of the list.

One interesting development in terms of paper-handling is a front loading cassette system, seen for example on new Rank Xerox and Toshiba machines, that eliminates the normal hassle of replenishing paper in a restricted space.

A major time-saving innovation for operator productivity is an 'Intelligent Commander' for the 30cpm Minolta EP 4300 which accepts personal memory-cards containing up to 10 job sequences.

Just how far copier technology has come can be gauged from the fact that, although it is a general office machine, it features anamorphic zoom, auto-duplexing and a colour system that enables three areas to be defined for colour reproduction so that a complete mailer can be produced in one scan, with heading and footing in colour and text in black.

However, it could be said that, for true high productivity, you need a speed of 100 copies plus per minute, the ability to collate not only copy pages but covers and inserts, with on-line stapling so that complete documents can be produced and finished on the spot.

New products meeting that specification include the Océ 2500 and the Rank Xerox 5090. Not many offices would have need for such high speeds, of course, but a number of a new machine in the 40-80cpm are being or are about to be launched and they include new models from Lanier (Harris/3M), Kodak and Ricoh.

Underlining the need for higher-volume copiers in the computerised office, Barry Wild of Agfa Office Systems said in just three months since the launch of the X88 80cpm copier, the company had notched up orders worth in excess of £500,000.

There is no doubt that we are at last seeing the start of a new era in full-colour copying with the advent of affordable technology. It begin early in the year when Brother, quite unexpectedly, launched the 5500 Cycolor, the first sub-£5,000 full colour copier on the market.

There are now "developments underway both up and down the range for delivery sometime next year, with the possibility of a computer colour printer using the same innovative Mead colour process," reveals John Carter, head of Brother's Office Equipment Division.

Sharp also intends to launch a Mead process colour copier some time in 1990. Like the Brother machine, it will be relatively cheap to buy but will only offer size for size colour copying with costs per copy between 50p-60p.

More immediately, having entered the colour copier market earlier this year with the CX-5000, Sharp is on the brink of going upmarket. The new CX-7500 will have a list-price of around £13,000; it will produce 7.5 copies per minute in colour, 22cpm in black, reduction and enlargement and will boast a relatively low all-inclusive copy cost of 25p.

Another manufacturer with a full-colour plain paper copier waiting in the wings is Ricoh. However, as Chris Wills, UK product marketing manager, explains: "When you can get copy-cost down to 11p or 12p and purchase price to under £10,000, then it would be possible to make a major impact on the market. I am confident we will be able to deliver such a machine during 1990."

Suppliers' emphasis on cost-per-copy reflects a growing awareness of running costs among purchasers

For the present, though, when it comes to full colour copying, Canon is the undisputed market leader. Only last month the company announced the CLC (Colour Laser Copier) 200, a lower cost full colour copier with a price tag of £12,000, making it affordable for general office environments.

Producing colour copies at 4.6cpm or black and white at 20cpm, it offers 400 per cent zoom enlargement, image repeat, mirror image, margin shift, two-page separation and a new map mode for high definition of detailed areas such as maps.

Another emerging market involves digital technology which supports more creative high quality document production, a greater range of zoom with mor editing capabilities, the ability to handle poor originals and, eventually, the ability to act not only as a copier but a computer printer and a fax machine.

According to the latest NBES survey, while 30 per cent of interviewees were aware of the existence of digital machines, few actually understood the technology nor what the advantages were. But now that such products are being delivered and as potential users become real sales targets, then then everyone will become more knowledgeable.

Infotec, Panasonic and Ricoh have such products in the pipeline although no definite dates have been set for UK delivery, although mid-1990 appear to be favourite.

On advance of the mainstream, however, is the Konica 8010 which adds colour intelligence to digital copying. As well as such features as 200% magnification and anamorphic zoom (image stretching both horizontally and vertically), it offers single colour (i.e. black, red or blue); multi-colour (black, red and blue); and colour conversion (from black into red or blue) via the use of an appropriately coloured pen to encircle text to be converted.

A multi-spot colour option is also now available on Canon's NP-4835 (list price: £5,256), the first copier in its class to combine both analog and digital technology to permit precision editing, automatic page numbering and time and data stamping.

It also has a stamp mode for including standard messages such as Confidential, Forward to and Copy to. Said to be "selling like hot cakes," uptake has come from manufacturing (26 per cent), education/employment (16 per cent) and professional services (13 per cent); with print shops and advertising agencies accounting for 10 per cent each.

Digital technology is also being applied to duplicating machines, enabling plain paper copies to be produced at high speed, but very low cost.

Both Rex Rotary and Gestner market what are called CopyPrinters, both of which are based on the 120 copies per minute Ricoh SS930.

If you are into desktop publishing, then the Alcatel SP9000 digital printing system DTP Link is a most interesting development. Due for launch in November, it is capable of being linked to IBM PCs and compatibles running Xerox Ventura DTP software or one of a host of word processing packages and is able to produce multiple copies of multi-page documents at the rate of 150 pages per minute at the cost of one tenth of a penny per print.

The emphasis on the cost per copy highlights the fact that, with the increased use of copiers, purchasers are becoming more aware of running costs, as consumers are with the APR.

A recent survey carried out by the publishers of *What to Buy for Business* shows that, when it comes to satisfaction

Continued on page 3

TECHNOLOGY IN THE OFFICE 3

A London dealing room: the phone systems of the future are likely to be an integral part of the desk-top computer, linking voice, data, fax, and other facilities.

Telephone equipment

New features abound

THE INTERNATIONAL telephone network is truly the eighth wonder of the world, spreading its tentacles of communication throughout the industrialised nations as well as less-developed countries.

Until recently, each tentacle culminated in a telephone handset, a device variously described as a gadget designed to enable you to talk to somebody else — or a gadget designed to prevent two people from holding a conversation.

But times are changing. The great movement of all business systems — from analogue to digital, coupled with the commercial impetus gained from liberalisation — have combined to create a boom in telephone-receiving equipment.

No longer is the choice of equipment just a choice between grey or green. Now, with the increasing involvement of computer and software driven receiving equipment, the options and capabilities of office telephone systems are truly remarkable.

There are three basic categories of telephone receiving equipment: PABXs for the larger company (to allow multiple exchange lines to come into the office, and to distribute both internal and external calls to the right people); keyphone systems (for the medium-sized site that cannot really justify a PABX); and the telephone handset itself for the individual telephone line and individual user.

PABXs really fall outside of the purview of this discussion. Suffice it to say that the latest products are all digital, software-controlled, provide a bewildering array of facilities, can handle computer terminals as easily as telephone handsets, and offer an alternative to the traditional PC-based local area network.

Their secret is that they are effectively digital computers, and can therefore be designed and programmed to perform functions that could never be achieved by analogue switching equipment.

Keyphone systems are typically used by small-to-medium-sized businesses that have a decentralised telephone answering system; that is, they have neither a central PABX nor a dedicated switchboard operator.

Any user on the Keyphone system can answer any incoming call and switch it to any other user. It is the category of telephone system that is likely to receive the most dramatic development in both facilities and sales during the next few years, for not only is an effective way of handling messages with the outside world, it also provides the potential for the development of very useful internal facilities.

To demonstrate the way in which Keyphones are developing, consider the new Apex system from Tele-Nova, a digital hybrid keyphone system offering between four and 24 exchange lines, and between 16 and 72 keysets.

Each keyset has its own LCD screen that can display messages for both incoming and outgoing calls. For example, if a busy user enters the message 'in meeting' on his own keyset, that message will also be displayed on the keyset of any other user trying to contact him.

Another new feature is a built-in calculator that can be used both with and independent of the Keyphone system. During a conversation, it can be used as a scratchpad to enter a new telephone number — and the system can be made to automatically dial that number at the end of the conversation.

Other features include those previously only found on PABXs, but now increasingly found on such smaller systems: call transfer, camp-on-busy with automatic retry, call-barring, function keys and so on.

Is such functionality really necessary?

"Yes," says Tele-Nova's sales director Paul Lester, somewhat predictably. All Apex features are included for the specific purpose of increasing the user's telephone efficiency, and not just to show off tech nological innovation.

"Last-number redialling or initiating a call from the scratchpad by simply pressing a single button both save a lot of time — particularly when trying to get through to a number that is often engaged."

That is the key point: digital technology must be used to increase telephone efficiency since telephone efficiency can often be the difference between success and failure.

The importance of such efficiency, and the way in which the new digital technologies can be used to ensure it, can both be found in one of the telephone's most hectic environments: the City's own dealing rooms.

Dealers are constantly receiving telephone information, but they cannot afford to miss incoming information simply because they are already using the phone. Because of this, not only does each dealer require multiple telephone lines (preferably to a single handset, since not even a yuppie can juggle half a dozen phones at once), but he or she also needs some form of information and control over the lines.

The ViAX dealer system from TR Financial Communications provides just such a facility. Each user can have up to 30 lines coming into the single desk phone, with a series of LEDs showing which lines are busy, which lines are "holding" and so on. This way, if an urgent call is expected, the dealer can easily switch to the required line, while holding onto his current call.

Versions of the dealer system are also being bought by telesales organisations and especially emergency services — anywhere, in fact, that there is a need to control and prioritise multiple lines.

However, nearly all telephone systems are waiting for the Integrated Systems Digital Network (ISDN). Many products already claim to be ISDN-compatible — but since the standards have not yet been completely finalised, there is a possibility that some products may yet be a little premature.

The important factor about ISDN is that it effectively makes the entire telephone network digital — rather than limiting the digital capabilities to specific systems, such as PABXs and Keyphones, that are attached to the network.

As a digital system in its own right, the network will not care whether it is a telephone or a computer terminal that is attached — and, as a result, users are bound to discover increasing sophistication built into individual handsets.

The telephone systems of the future are likely to be an integral part of the desktop computer system. Voice, data, fax — you name it, it will all be possible from the single system. And since we can program it, we will be able to screen out all but the most pressing calls, or re-direct to another phone, or send a digitised voice message in answer, or anything that the designer's imagination can conceive. At that time, the telephone will become our servant, rather than the master it is so often today.

Kate Taphouse

Copiers

Continued from page 2

with service, copy-quality, reliability and whether users would recommend their machine to others, the top three manufacturers were Océ, Rank Xerox and Sharp.

Strangely, Kodak does not feature at all, although the publication states that it excluded brands for which they received less than 20 replies.

Nevertheless, Kodak Copy Products Equipment Service has just proudly proclaimed that it has become the first major organisation to achieve *registration* in compliance with BS 5750, the standard that aims to produce assurance to purchasers that they will rec eive a high quality support service.

However, while manufacturers who sell direct are naturally keen to tell the world of their awards, an increasing number of purchasers are buying through dealers.

Indeed, most manufacturers we talked to are anxious that, with their back-up and service support, dealers do take the new technology products on board, for they see that is the only way to maintain market share in the years ahead.

Demarcation lines are blurring between computer classifications

Complex choice for buyers

Kevin Townsend highlights catalysts of change in computer classifications

LIFE never gets easier — especially for buyers of office computer equipment.

There was a time when choosing a computer was simple. If you were a small company, then you needed a personal computer; if you were a medium-sized company, then you needed a minicomputer; and if you were a large or international company then you needed a full-scale mainframe.

But all of this has changed or is changing very rapidly — the demarcation lines are blurring, and there is no longer a direct *correlation between* computer size and classification — and computer power.

There are three primary catalysts: PC networks, the new classification of multi-processor or parallel processing supercomputers, and Risc (for "reduced instruction set computing") processors.

PC networks are the easiest to understand and to explain: you simply link a number of stand-alone PCs together so that they can share common resources, such as file storage and printers. This makes the PC itself suitable for small, medium and large companies.

Instead of buying a central mainframe with remote terminals at different sites, you can now use individual local area networks (Lans) at each site, and use 'gateways' to link the different Lans together over the public network or via leased lines.

Parallel processors are a different matter altogether. The theory is simple: many hands make light work. By using multiple processors and distributing the processing requirements around the different processors, users should, in theory, be able to reduce the required processing time for any application.

The two most common parallel processing architectures are *a daisy chain link from one* processor to the next, and a complex topology known as the hypercube. The daisy chain approach is most frequently used with a relatively small number of minicomputer-sized processors to turn the resulting product into something more than a mainframe: a supercomputer. These are very powerful — but not cheap.

But it is the hypercube topology that could most upset current computer classifications. Hypercubes generally use microprocessors in various combinations of from, say, four to thousands.

But what *is* a hypercube? In computing terms, it is an inter-connection scheme based on an 'n' dimensional cube where 'n' represents the number of directly-connected nodes, or processors.

By this classification, a single standalone PC is a zero-dimensional hypercube; a two-processor hypercube is a one-dimensional cube; four processors make a two-dimensional cube — and so on — up to something like a 10-dimensional hypercube made up of 1024 individual processors.

In practical terms, the important point about the hypercube is that it is the best methodology for linking large numbers of processors in the *most effective manner*. This topology conforms with the requirement to link each processor with its nearest neighbours; so, in a four-dimensional cube, each single processor is connected to its four nearest neighbouring processors.

This is important, since a significant amount of processing within a parallel processor system must necessarily be concentrated on the physical act of sharing the tasks around the processors even before any real processing can begin. Nevertheless, although a two-processor system will not perform a task anything like twice as fast as a standalone system, the increased performance can be quite phenomenal.

But how does *this* affect the traditional classification of office computers?

Consider the "Ncube" product range available from Arrow Computers. The smallest system is the Ncube Four — a 16-processor hypercube that actually fits into a PC AT chassis, and provides more power than the traditional minicomputer. The Ncube Seven (with 128 processors) is the size and price of a small minicomputer but with the power of a mainframe; while the Ncube Ten (1024 processors) offers more power than *some of the largest mainframes* in the size of a mini-computer and at the price of a very small mainframe.

Parallel processing offers the potential for vastly increased computer power by maximising the use of existing technology. But the last new development has equal potential for disturbing existing computer classifications: the Risc processor.

Risc (reduced instruction set computing) *is best understood* in terms of the ubiquitous 80/20 rule. Research has shown technicians what any businessman could have told them: 80 per cent of the work accomplished by a computer application is performed by only 20 per cent of the available commands.

Further tests demonstrated that by reducing the commands (the instruction set) to the 20 per cent most-used (or thereabouts) and by maximising the efficiency of those commands, the actual processing power of the resulting computer is dramatically improved over existing conventional products, (Cisc, or Complex Instruction Set Computing).

It's not quite that simple, of course. Risc maximises the 20 per cent by making the commands so simple that a whole command can be completed in every single processing cycle. A conventional processor command may be able to achieve more in a single command, but may take *three* or four cycles compared to the two cycles for two commands in a Risc processor.

The overall effect is that Risc processors have caused a sudden and dramatic improvement in the performance of what effectively usually remains a microprocessor.

So dramatic is this improvement *that it has led to a* a new category: the workstation. At the moment, workstations and Risc systems are primarily aimed at Cad and scientific applications.

But this will change. For larger systems, Kode Computers is already offering a very powerful Risc-based product (the Kode Icon 8000) as an extremely powerful minicomputer at a very competitive price. In the workstation market, Data General has just released its "AViiON" workstation, offering the Cad or graphics designer all the power he or she could possibly require for what is a very power-hungry application.

The AViiON is actually housed in a chassis that is smaller than most PCs — and yet is very much more powerful.

Now, the interesting thing about these two products is that they actually use the same Risc microprocessor — the Motorola 88000. But what is even more important for the future is that both companies are heavily involved in an organisation called the 88/Open Consortium — whose avowed intention is to promote the development of software so *compatible that it can be* bought 'shrink-wrapped' off the shelf. It will, effectively, mean that software for the AViiON workstation will run unchanged on the Kode minicomputer.

The combined effect of parallel processors and Risc computers will mean that the current demarcation for PCs, minicomputers and mainframes, *based* largely on comparative power, will become nonsensical. It will obviously give the user considerably greater choice, but it will undoubtedly give the consultant considerably more work.

Word processing and the new generation of secretarial workstations

Demand for more advanced facilities

IN AN age when the demand for more PC-power and ever higher speeds for text communications, a *legitimate question* might be whether there is still a place for the typewriter and word processor.

According to office technology suppliers who offer products across the whole spectrum, *the answer is* a resounding: Yes. The personal computer, they say, is ideal for those who are numerate by inclination and therefore are not fazed by a PC keyboard and complicated commands, but it is a far from ideal solution when the user needs to produce high volumes of large text-based documents, one-off letters and shorts memos, *address envelopes or* fill in pre-printed forms.

That said, there is no doubt that sales of the traditional standard typewriter are in *decline. According to* Wharton Information Systems, the publishers of BOSS (British Office Systems Service), the annual UK spend on equipment to process information on the desktop has climbed to £2.17bn and is forecast to reach more than £6bn in 1992.

Within that overall total, sales of office electronic typewriters reached 188,000 machines in 1988, representing revenues of *£89.7m million and* an increase of 1 per cent in unit terms over 1987, with compact memory machines taking an increasingly larger share of *the market* at the expense of standard non-memory mid-range models.

Sales of display typewriters were put at 72.5m machines, representing revenues of £52.15m but a decline of 9 per cent, in unit terms.

One area of the ET market that no one disputes is still booming is the portable sector which is showing a 60 per cent growth. *As a result, an increasing* number of suppliers, including Brother, Hermes, OEM and Sharp, are targetting home-office workers and PC-users who need a small, convenience typewriter. Typical of *the new generation* of such machines is one of a the new line-up from Panasonic which offers 14K memory (equivalent to about seven pages) and *which has a list price of just* £220.

Sales of traditional standard tyewriters are in decline

The market leader in this sector, Smith Corona has also launched a new range of portable *ETs supported by a £500,000* advertising budget. Again highlighting the way technology is progressing even at this end of the market, machines are priced from £189 to £299 and come with a built-in demonstration for easy learning, spelling-checker, up to 20K *(10* pages) of editable text memory with 90-day battery backup, correction memory and new layout facilities.

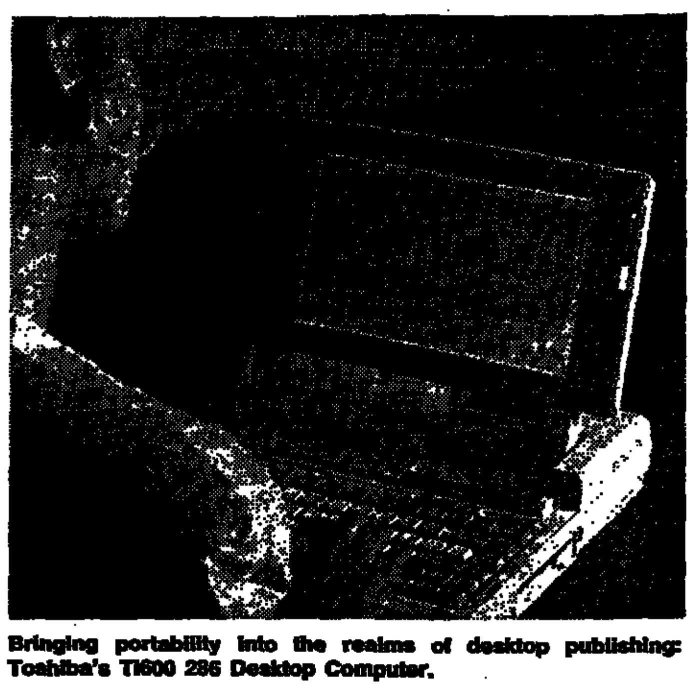
Barry Bruce, market manager of Hermes Precisa, is not alone in believing that the typewriter will make a comeback just as the calculator did when people discovered that the PC was not the right tool for instant mathematical functions – "nothing the computer *or printer manufacturers have* yet devised, and we consider ourselves among them, delivers the same degree of versatility as the simple ET."

Proof that the ET with WP features is in high demand comes from Rank Xerox, who spent four years and $40m developing a new noiseless *(almost) print technlogy for the* Piano range. According to Iain Livingstone, director of Associated Business Operations, the machines were designed in direct response to consumer and market research studies which indicated that noise was becoming an increasing problem in the office environment.

Advanced word processing facilities include document assembly, auto-pagination and spell-checking. Meeting demand for greater communications capabilities, it is also possible to dial-up Ethernet (the local area network) and *send electronic messages or* exchange documents with other network users.

Sales, we are told, are above expectations. Whereas £2,000 plus was deemed an acceptable price a couple of years ago, new machines coming on to the market, such as the Visuwriter *from Kardex* and the 3004 Viewtyper from Crown/Erika, are being delivered at under £800, but nevertheless still boast full WP, 12in screen and disk drive for text storage.

Such systems are ideal for the secretary has to create a *lot of documentation but would* run a mile from a PC. Statistics would suggest, however, that the era of the so-called 'dedicated' or proprietary word processor for general office use is coming to end.



Bringing portability into the realms of desktop publishing: Toshiba's T1600 286 Desktop Computer.

Manufacturers including AEG *Olympia, Hermes,* Olivetti Office and Philips believe that the way ahead lies with IBM compatibility in one form or another, particularly in the general office environment where, for instance, files need to *be exchanged between* author and secretary either for checking or, say, for the production of corporate reports that need to incorporate data from departmental PCs.

As an example of the trend, Facit is about to launch two IBM-compatible word processors with keyboards customised to the secretarial job function and incorporating an ergonomic, low radiation, low magnetic field screen designed to the most stringest Swedish emission regulations, a specification that is laible to be increasingly in demand as we move closer to the Europe and start adopting higher standards.

A particularly interesting development in terms of office technology is the new generation of secretarial workstations *that combine the functions of* an ET with that of a WP and PC. As an example, AEG Olympia has just launched what it calls 'bridge' products which combine the best of all three worlds, *(see below)*. For the technically minded, the screen has a high 80MHz refresh rate, which means that it is flicker-free and *can be* used all day long without tiring your eyes, a feature that few PCs can boast.

One of the first three-in-one systems on the market and launched last year was the *OEM Screentyper Plus* which boasts four disk drives, one of which is a 30Mb hard disk and, unusually, a tape streamer to prevent data-loss in the event of a power failure.

Powerful new chips are making systems easier to use

The next stage in the development of the ideal *secretarial* workstations is likely to be the customised desktop publishing system which is as simple to use as a word processor but offers more advanced software for more imaginative document creation, has enough power and storage capacity for records management as well as graphics *and image-handling,* is IBM PC-compatible so that it can be linked into a PC-network for electronic mail, diary scheduling, file transfer, and so on, which *also offers* ultra quiet printing. Rumour has it that Olivetti Office has such a *system 'in the wings,'* based on thermal printing technology.

While refusing to be drawn on dates, marketing manager Alistair Booth did say that such a product was possible: "The office systems industry is very *much like* the car industry. There is little difference between the engines today; it is the design of the casings and controls that makes the rea l difference in terms of user-appeal. A video publishing-type product might use *the same* chip as our M250 micro, but it *would look* different because it would be tailored to the application."

Indeed, as more powerful chips like the Intel 286, 386 and soon 486 processor become the norm in office systems, so the software developers can produce applications software that is truly easy to use, rather than *supposedly easy to use.*

The manufacturers, in turn, will be able to design workstations that any typist could use within minutes without having to attend an intensive training course to get beyond first base.

The general feeling among the main ET/WP industry players is optimistic, despite market researchers' forecasts. Whether or not Amstrad will once more pick up the gauntlet and launch a PC-compatible PCW word processor, as is rumoured, we have no way of confirming. Certainly, the *famous* LocoScript software is now available for PCs. But then, as we said at the beginning, PC keyboards are not known to be "secretary *friendly.*" A case of watch this space?

Julie Harnett

Bridging three worlds

There is no better way to store, manipulate and present large volumes of text and data *than with a personal* computer.

Research indicates, however, that around 95 per cent of secretaries who acquire a word-processor *still keep* their familiar manual and electronic typewriters as a speedy option for tackling smaller tasks, such as the *typing of compliment slips* and envelopes, according to AEG Olympia, the business machine manufacturer.

"There is still no quicker or *simpler way to produce* a straigth-forward letter or memo, or address an envelope, than using a typewriter," admits the company which is *now producing a range of* new "bridge" products – such as the Olytext 30, shown here, which is claimed to combine the best of three *worlds – typing, word-pro*cessing and computing.

This text system allows typing and correcting on both screen and text simulta*neously, thus giving* the immediacy of print associated with a typewriter.

The system is also a word processor, and, with MS-DOS, *offers the* user access to a wide library of PC-compatible software and available with dual 3.5in. floppy disc drives and single 3.5in. plus 20Mb *hard disk and a black-on-*white monitor.

The choice of printers range from daisywheel, matrix, laser and inkjet *systems.*

Olympia Business Machines recently changed its name to AEG Olympia (UK), reflecting the change in *structure* within the group which is part of the Daimler Benz group.

Document image processing will boost the amount of electronically-managed data

A way to revolutionise computer applications

COMPUTERS are increasingly used to store and manage corporate information – but despite their ubiquity, the amount of corporate data actually held electronically remains a very tiny percentage.

The fundamental reason is simple, although perhaps a little surprising to those who have grown up with computers: computers and business are intrinsically and inherently incompatible.

The reason can be summarised very simply: computers process formalised data stored as small combinations of individual characters, while business processes informal information, stored on documents.

While computer data can only be held in one manner, generally the Ascii code, paper-based information can be held in a variety of formats: different type-styles and sizes, pictures and illustrations, and handwritten annotations. The traditional formal computer cannot handle the informal business document.

Until now. The latest movement in office systems is towards the technology known as Document Image Processing (DIP), a technology still in its infancy, but one that could revolutionise the way *in which computers are* used in business.

In concept, it is very simple. Instead of using a computer to store and manage *individual* characters, you use it to store and manage entire documents. Instead of typing the character at a keyboard, you scan in an entire document through an optical scanner.

Once you have all the information held on an informal document stored within the computer system, you can begin to develop methods of making use of that *information. The full* realisation of this potential is, of course, still a long way in the future.

In the meantime, DIP is being used in two particular and less ambitious manners. Firstly, it is being used to create and maintain an archive document database, and secondly it is being used as a methodology for the processing and distribution of corporate documents.

But before we examining the methodology and value of these applications, we *should first be sure of* what constitutes a DIP system.

The starting point of any DIP system is an optical scanner. This is used to scan individual documents and convert the image into a digitised representation.

The digitised image is then sent to a central computer (increasingly a microcomputer that may be either standalone or networked), *where it is* processed and either displayed on a screen, printed, or stored on an electronic archive system.

A DIP display system should preferably be a large screen with a high resolution to ensure that even a document's small print is perfectly legible. The printer must be a page printer probably a laser *printer, and be able to print* at at least 300 dots per inch resolution.

The archiving system could, in theory, *be any system able to store data electronically. In practice, however, it is* likely to be an optical disk system.

A single digitised image requires a considerable amount of storage space: a database library of images could not economically be handled by anything other than optical technology.

The final element is the specialist software to make the various components work *together as a single coherent* system.

It is the software that makes all the difference between an effective and an ineffective DIP system. The primary requirement is to create and maintain an indexing system for the document images.

Without this it would take longer to find any particular document than it would in a traditional manual filing system. However, any index is only as good as the information within it.

Under normal circumstances, any need for an ultra-flexible index system would require a considerable degree of data input through the keyboard – and this could *lead to a bottleneck at the* scanning stage.

It could also mean, of course, that the passage of time and changing *circumstances could reduce* the relevance of the chosen index keys.

One growing solution is to use an image-to-Ascii conversion feature, and then index every single word on *every single document.* Here the system will take a particular pattern of dots and compare it with a library of 'master' patterns.

The comparison enables the system to decide whether the pattern is 'meaningless' or an actual character. Whenever the pattern matches, the image is converted to the relevant Ascii character; that is, the informally displayed information is converted to formal computer data, and *at this point the full* processing power of the computer can be brought into play.

Because the data is now in the computer's own language, it can index every word and store it as a free text database, or it can convert it to a *different file format and* send it to a word processor or spreadsheet program.

Most of the existing DIP systems are American in origin, but an *increasing* number are being developed in the UK and Europe.

British-based Document Systems has built a PC-based system from existing components (using a PC, scanner, optical disk and Canon-based laser printer from whatever origin – although statistically likely to be US or Japan), and adding to that an image processing board from the US and its own Infoplus software.

From Italy comes the Archea system, available in *Britain from Ingenium* Software. Although new to the UK, it is well-established in Italy – and actually uses British free text retrieval database *software. One* user is Electronica di Potenza, a division of the electro-mechanical engineering group, Ansaldo.

Archea has enabled Ansaldo to centralise its hitherto fragmented archiving centres, and has eliminated much of the associated overheads caused by time-consuming manual searches.

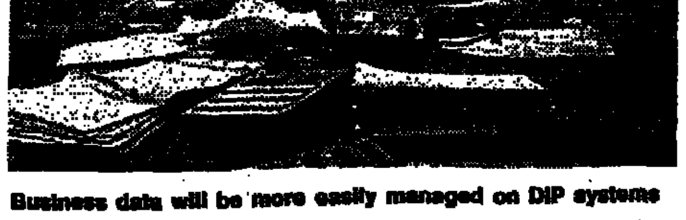
Indeed, Ansaldo has estimated that it used to spend 7,500 man hours every year simply in searching through its physical archives – now a *single search* can be achieved within moments.

What Ansaldo has achieved is an automated document library – and Document Imaging Processing can almost always be justified on the consequent savings in staff and cabinet storage space alone.

But this is only the beginning. We have already mentioned that the next step must be the transference of document data into traditional computer applications. *This* is already becoming possible. A new optical character recognition system (OCR) called TrueScan and available from *Frontline can now read* in scanned text and write it straight out to any one of a dozen or more applications, ranging from spreadsheets such as Excel and 123, to word processors like Word and WordPerfect.

What we shall see in the future, as IBM's Presentation *Manager and* the Unix-based X-Windows systems become more prevalent, will be the ability to cut-and-paste scanned text straight from *the image to the application.* And it is document image processing that will finally unite informal business procedures with formal computer requirements.

Kevin Townsend



Business data will be more easily managed on DIP systems

☐ Paul Starkey, above, producing one of the winning entries for the "Document of the Year" awards, using Rank Xerox's Ventura *desk-top publishing system – he brought together one of* the world's oldest technologies (animal power) with one of the newest (DTP) to produce a 350-page book, called "Animal Power in Farming Systems." This publication, which is based on 44 papers from a conference in West Africa, is distributed *free in developing countries by the West German aid agency,* GATE, (German Appropriate Technology Exchange).

Design criteria for desktop publishing

WHILE desktop publishing (DTP) is coming of age, one of the criticisms of DTP is that, in the the wrong hands, it can produce dismal-looking docu*ments, while turning busy* executives into second-rate designers.

At least five design criteria for the successful production of a DTP document are suggested by John Miles, author of *Design for Desktop Publishing,* and one of the judges of a "document of the year" competition, using the Xerox Ventura Publisher program. The design criteria include:

☐ Function: documents need to be appropriate to the job they are required to do. There is also the issue of using the right technology for such tasks as updating DTP documents.

☐ The choice and use of type: typography, column widths and line-length, head*ings and spacing all contrib*ute to overall readability.

☐ Layout: the right balance between text and illustrations.

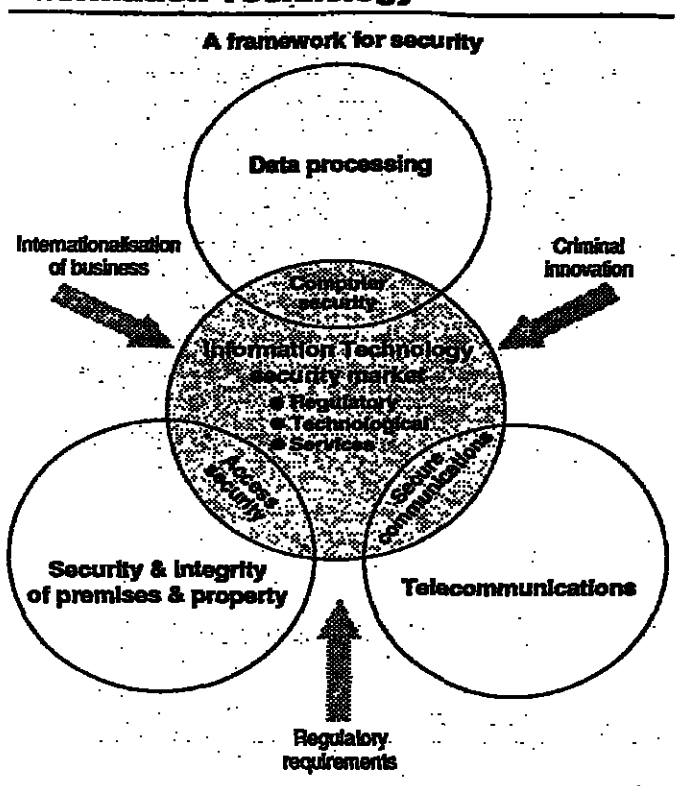
☐ Aesthetics and discipline *in the use of features* – "a continuing weakness of documents designed on DTP programs is the indiscriminate use of the many features available. Boxes, *rules,* tints, reversals and drop-shadows are far too often a sign of desperation and a failure to understand the correct design process."

☐ Production – "getting the whole documents set up on a disk is only the beginning," says Mr Miles. "The rest of *the production* process has to match up to it. This isn't just a matter of cost – two of the six winners were well-produced, low-budget productions."

Top prize for "document of the year" went to Horizon, a medical journal from Medicom.

Information Technology

A framework for security



Source: Frost & Sullivan

$1bn market for office security systems

AS OFFICES worldwide make increasing use of information technology systems, there is a growing awareness of the importance of proving security measures to ensure the constant availability and integrity of these networks – especially in the financial communities of Britain, West Germany and France.

The European market for security products and services for information technology is worth $1.11bn and could rise to over $2.39bn by 1993, according to Frost and Sullivan, market analysts.

Forecasts are made for the value of markets in individual European countries, broken down into four main security sectors: access control and physical site protection; telecommunications security; database systems; and security services, including off-site data archives.

Fierce competition as new suppliers enter the facsimile market

The fax phenomenon

Facsimile is the preferred method of electronic text communications, says Julie Harnett

NEARLY a quarter of the fax machines in use in the UK, i.e. 109,082 units, were purchased during the first six months of 1989, according to the latest figures published by the BFICC (British Facsimile Industry Consultative Committee), the fax trade association.

It proves beyond all doubt that fax is the preferred method of electronic text communications, with the UK installed-based now in excess of 470,000.

According to statistics produced by British Telecom, the world population of fax machines is 7m, with Japan *commanding the lion's share of* 41.4 per cent, North America a 31.4 per cent share and Europe 20 per cent.

Of the 1.4m machines installed in Europe, 26 per cent are in the UK, 14.3 per cent in Germany, 13.6 per cent in Italy and 12.9 per cent in France.

Main users of fax, according to a survey carried out by the UK's NBES (National Business Equipment Survey), are secretaries (30 per cent), managers (24 per cent) and clerical staff (12 per cent), with technical staff and directors, each representing 1 per cent of users, show little interest.

One can see this growth pattern reflected in the number of new entrants to the fax market this year.

Traditional suppliers such as Alcatel, British Telecom, Canon, Infotec, Interscan, Konica, Lanier (Harris/3M), Muirhead, NEC, Panasonic, Philips, Pitney Bowes, Rank Xerox, Ricoh and Sharp now face fierce competition from such suppliers as AEG Olympia, Brother, Fujitsu, GPT Plessey, Hermes Precisa, Minolta, Mita, Mitsubishi, Office & Electronic Machines (Triumph Adler), Olivetti Office and Toshiba.

Whether the market can sustain that amount activity is open to question. But since *there are over 454m telephones* in use around the world, 20m of them in the UK, penetration of fax has hardly scratched the surface.

Amstrad, then, should not be unduly concerned about being late into the game. Certainly the company's new FX 9600T should give the competition a run for its money. On the face of it, the price of £599 was a disappointment, with some eager market-watchers hoping for at least a sub-£500 list price. However, closer examination of the features confirms the trend towards feature-packed entry level machines that would have cost nearer £2,000 last year.

The first fax to be Mercury-compatible, it comes with fully featured integral handset, LED display, 100-number memory, auto-paper cutter, 20-page auto-sheet-feeder, auto-redial, 16 shades of grey and halftoning, on-board battery backup, "paper-out" alarm and red star mark providing proof of delivery.

More interestingly, it can be connected to a PC allowing direct transmission without an intermediary print-out; it can be used as a scanner to capture the user's signature for auto-addition to each fax message; and it can be used as an IBM-Epson compatible printer or occasional copier.

Another machine epitomising the trend towards greater sophistication is the Sharp FO-550, a combined fully-featured telephone and fax which can be connected to most telephone answering machines in order to receive, completely automatically, voice, fax or recorded messages.

With a list price of £1,645, it also has a 14-page memory. What many buyers in future will be looking for, however, is CCITT ECM (error correction) conformance, the new standard which guarantees clear, error-free fax transmission between all Group 3 machines.

It is a feature that will be greatly appreciated by serious fax users who know the frustration of having to manually re-transmit messages that have suffered from a poor line. We are already seeing a plethora of new machines with CCITT ECM.

For example, following in the footsteps of Panasonic and Pitney Bowes is Alcatel Data Systems which promises the launch in November of two such machines, one of which boasts 11-second transmission, a real cost-saver if you send a lot of faxes.

Another trend is toward the development of machines with larger memories which enable users to store confidential messages, create personal mailboxes, store fax messages for later transmission at cheap rates or to co-incide with different time zones, or for storing incoming messages if the paper has run out.

However, while a fax machine may boast a 2Mb memory which, in personal computing terms, means the ability to store some 1,000 pages of A4 text, with image technology like fax, it only allows the storage of around 60 pages.

Highlighting the trend is the new Sharp FO-800 CCITT ECM fax unit which has a price tag of £3,295 and comes with an expandable 70-page memory. More advanced still is the new 120-page memory Nefax 440 from NEC, which offers A3 transmission, enables you to broadcast stored *faxes to over* 200 destinations automatically and is priced at £3,395.

Batch transmission, a new feature, allows documents to be stored in separate segments of the memory for up single transmission to a maximum of 10 destinations at a pre-registered time – ideal if you accumulate a number of messages during a day for each of your overseas offices, for example.

The addition of departmental access codes and sectionalised reports ensures easier cost allocation. Junk fax is an epidemic in the US and a growing problem in the UK as direct mail and marketing companies begin to address the extensive base of fax users.

Most junk fax is transmitted at night, when rates are cheaper and there is no one there to switch the machine off. With the high cost of thermal paper, nobody wants to be faced with reams of unsolicited messages. Pitney Bowes has developed a software option for the model 8050 whereby it will refuse to accept transmissions if it does not recognise the CSI (Calling Station Identifier).

The new Konica 300 will foil them, too, since that will only handle authorised transmission/reception. Thermal paper may serve its purpose in terms of messaging, but the heat generated during transmission tends to make it curl, resulting in mixed up messages in the receiving tray; images tend to fade in a relatively short space of time; and it is difficult to write on, making text corrections difficult.

What most fax users have been patiently awaiting, then, is the affordable true plain-paper fax. That promise become a reality in June this year. The first to deliver was Canon who launched the £4850 L920 laser fax which can transmit an A4 page in 12 seconds

As well as 50-200 per cent zoom, it offers book scan mode (up to A3) with a flat platen for direct transmissions, speed dialling, 65-page memory, sequential broadcasting to 151 locations and batch transmissions to 24 destinations.

Next to introduce a plain paper fax was Ricoh with the £4,695 Fax 1000L, followed by Infotec with the 6755 at £4,650. Features common to both include CCITT ECM, ID-codes to prevent junk mail reception, maximum 750-sheet paper capacity, 50-page memory with 72-hour battery backup in case of power failure, 64-step halftone and contrast control and A3 transmissions.

Electronic mail

The need for PC power

WHILE the use of facsimile has rocketed over the past couple of years, the uptake of other forms of text and message communication such as the electronic mail services and telex have shown a somewhat lacklustre performance in comparison.

There are several reasons for this. Telex, for example, has suffered from slow transmission speed, time-consuming set-up procedures, high cost of *hardware and the need for a* dedicated operator.

Electronic mail has suffered incompatibility between the various services such as Telecom Gold and One-to-One; general staff found the systems difficult to access; users found it inconvenient to be forced to actively collect, as opposed to passively receive, messages; *and users – not unnaturally* – baulked at having to pay to collect faxes that might well be junk mail.

Software solutions now make telex accessible from desktop workstations

Many of those problems have now been solved. For example, the advent of digitised telex networks means that users can access the facilities direct from a desktop PC via a simple message switch, which means that even small companies can now *consider telex as a medium for* fast and, more importantly, legally accepted text communication.

While British Telecom's 1988/89 results show that telex service volume has declined "with the continuing migration to facsimile and the effects of competition," the company agrees with Mercury that there is still strong demand from freight forwarders, importers/exporters, financial institutions and companies needing to communicate with third world countries.

It explains why, with Mercury claiming that it handles 30 per cent of all international telex traffic from the UK, BT is determined to progress its £100m investment programme which aims to provide an all-digital telex network by the end of 1993.

To date, nearly 60 per cent of its 116,000 telex connections are benefiting from 50 per cent faster transmission speed, store and forward telex and multi-addressing with faster set-up.

Used mainly by companies rather than individuals, there are some 1.7m telex terminals in use, according to statistics produced by German communications giant, Siemens.

Germany has most telex ports although, in relation to population, comes after Luxembourg, Switzerland, Hong Kong and Belgium. The UK is 15th with 19.6 telex terminals per 10,000 people.

Because the standards for telex, like fax, are internationally-agreed and have been for some years now, there are a number of systems and software solutions already on the market that make telex accessible from desktop workstations.

However, the launch of Mercury's 7200 telex service has led to an increasing number of purchasers demanding the ability to access both BT and Mercury networks to take advantage of least cost routing.

One of the companies responding to demand is Data & Control Equipment with the development of an 'intelligent' upgrade for its TelexBox that *offers auto-routing, via Mercury*, for lower cost international traffic and, via BT, for UK services.

The BABT approved UK-manufactured system connects PCs, word processors and even electronic typewriters to the telex network, obviating the need for specialised e quipment. Ideal for smaller offices, *up to eight separate users can* be hard wired to send telexes, faxes or internal mail, while occasional users can have dial-in modem access to send and receive messages.

Looking at worldwide telecomms statistics from Siemens, one can see why the more personal forms of communication, i.e. fax and E-Mail, would not be *so popular in Third World* countries. In 1987, there were 454m telephone numbers in the world. In the US, 50 per cent of the population has a telephone which compares with 22 per cent in Europe and six per cent in South America, 5 per cent in Central America and 3 per cent in Asia.

Britain lies 14th with 39 tele*phone numbers per* 100 inhabitants. Because of the difficulties already cited with regard to E-Mail, many firms have turned to what is known as a value-added network services (VANS) to route their electronic mail messages.

The early problems of incompatability of electronic mail have now been solved

One such is The Direct Connection which claims to be able to send electronic messages to over 4m users on over 12,000 E-Mail and computer systems worldwide at a cost of 5p plus Vat per 1,024 characters.

Another, Com-Fox, not only provides a service but has just introduced an electronic messaging system for PC users which, based on the Intel 80386-based processor, supports up to 32 communications lines to give access to most forms of text and data communications.

Another development highlighting the trend toward multi-function message handling systems is the new Unix-based ADT 6600 from Alcatel Data System. As well as access to fax, E-Mail, telex, WPs, videotex, X.25 and so on, it offers such facilities as least-cost routing, auto-message re-direction, management statistics, pre-set transmission times and message security.

Another increasingly popular form of written communication is data broadcasting, a method recently chosen by Ladbroke to send confidential

Continued on page 7

Computer-related furniture systems offer advanced facilities

Solutions for cabling problems

ISSUES such as how to solve cable management problems and make better use of expensive office space have helped to boost the market for computer-related "systems furniture," now worth £670m in the UK alone and likely to rise to £890m by 1990, according to a new report.

The increase in office automation, high office rents and a growing awareness of the company image have all helped to boost sales of space-saving, screen-based "systems" furniture, equipped with advanced cabling facilities.

A leading player in the international market, such as Herman Miller – with a worldwide turnover of $793m last year – has seen "steady growth" this year, according to Andrew McGregor, managing director of Herman Miller Europe.

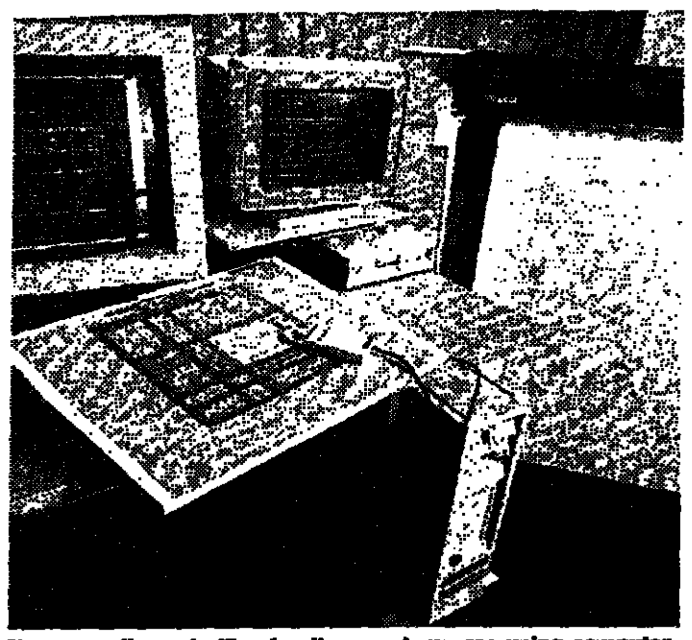
The Steelcase group, by far the world's largest manufacturer of office *furniture, with a* turnover of $4bn, now has 25 per cent of the US systems market. It has seen its turnover in Europe increase from £195m last year to over £250m this year.

In Britain, Steelcase Strafor has just taken over the Gordon Russell group, *the long-established* manufacturer of office furniture, which includes Harvey and Giroflex Seating, reflecting the rationalisation now going on in a fragmented marketplace.

Project, the largest British-owned manufacturer of office furniture, confirms that the issue of making more efficient use of office space is a main concern among systems' buyers. Project, with a turnover of *over £50m, will launch a new* systems range next year and is expanding its European growth through mergers and acquisitions.

With its French associate, Atal, which also has a turnover of more than £50m, Project – and Voko of West Germany, *and Steelcase Strafor* – are probably Europe's top three furniture manufacturers.

Despite the momentum in the systems market, there have been forecasts in the UK of some slowing down in the sector *after five years of boom.* Even so, a report by Business and Research Associates claims that the overall market is growing at 30 per cent this year and may increase by 21 per cent for the 1989-1990 period.*



More suppliers of office furniture systems are using computer-aided design to revolutionise the formerly lengthy process of planning and re-designing office layouts. On the Colston Computers system at Bristol, floor plans stored on the computer above can be called up on screen (left), office furniture (drawn to scale) re-arranged as desired, and the finished result printed out on a plotter (right), all within minutes.

While there may be some slow-down in the lucrative London systems market – for example, in sales to the financial community – the UK systems sector is still moving *forward strongly in areas out*side of London, particularly in high-tech industries, according to Matthew Davis of Steelcase Strafor. The company has just launched its Valencia range in the UK – a panel-come-free-*standing system,* already popular in the US.

In the early days of systems furniture, companies in Europe had little option but to buy expensive imports. Now the picture has changed, says Jean *Davis of Corporate Connec*tions – "manufacturers, many of them British, have opened up the middle ground, where before there was no such ground. They have up-graded the quality, design and choice *of mid-priced systems, so that* they now present serious competition."

From a marketing standpoint, the increased competition could bring a greater emphasis on direct sales, *suggests Mr Gautam Barua,* director of the London-based *National Business Equipment* Survey. Estimates of market size vary considerably in the industry, due to varying definitions of systems, screening and desking for the automated office.

Paul How, *managing director* of Asher Systems, part of Pentos, says: "We are looking for market growth of over 10 per cent a year. Any company that wants to make an impact in the UK has to invest serious *money in design, manufactur*ing and marketing – and that *is precisely* what we're doing."

The range of systems products is continually expanding. The first design from Herman Miller's European and development team was launched this month at the Designer's Saturday event in London. *The* range, called the Jaeger Group, features free-standing desks and conference tables, compatible with Miller's up-market *Ethospace Interiors.*

Under the title of Office Pavilions, Miller is launching a second tier to its dealer network, which aims to provide the end-user with a "total package" by forming alliances *with up to a dozen leading sup*pliers of lighting, seating and other facilities.

For the past five years, European *systems suppliers* have worked hard to create dealer networks, similar to the sophisticated US pattern. Some of the most successful of the *dealerships created in the UK* have been led by experienced management teams at the helm of major US systems companies. Among the more prominent are Business Design Group, Facility Group (headed by former Miller management), and Bristow Design Systems, (former Steelcase management).

John Sacks, chief executive of *President Office Furniture,* says that "manufacturers generally, and President in particular, are getting closer to the end-user .. it is becoming a partnerships between manufacturer and dealer, strengthening the support, and so helping the dealers to secure business."

Steelcase Strafor, which now has more than 170 dealerships in Europe and nearly 6,000 employees – excluding operations in the US and Japan – *provides facility manage*ment advice to clients wanting to improve asset management and office cost-containment.

Despite the advancing cable-managament facilities of systems furniture, a recent report by a leading architectural group, and sponsored by Project Furniture, claims that manufacturers' brochures and sales literature did not always adequately present the capabilities of systems in areas such as standards, safety and technical capabilities – "general assumptions from literature *were correct and rarely proved* wrong, but in many cases, discoveries were made at showrooms."

Alan Trotter, marketing director for Carson, the UK manufacturer of wooden furniture systems, sees the *architectural and design community becoming an increasingly pow*erful force in office planning – "design houses are now far more willing to undertake the total support of the project, *from survey, design and supply* right through to project management."

**Business Research Associates, 9 Market Street, Stockport, SK12 2AA (tel. 0663.65202).*

Michael Wiltshire

THE ISDN (integrated services digital network) revolution in telecommunications will soon *make itself felt in the office.* In addition to benefits such as better speech-quality and the increased *speed* and quality of Group 4 facsimile, it will support a new range of business services.

One of the most promising application is video-conferencing where recent developments in technology, coupled with ISDN, may enable it to become a widely used cost-effective tool.

As well as providing face-to-face contact between the one or more people at each end of the link, video-conferencing systems normally *incorpo*rate facilities for complete *audio-visual presentations.* These include the use of "overhead" or 35mm slide transparencies, together with displaying documents and diagrams.

Thus, virtually every requirement that one would *expect of a meeting is satisfied* even – though users are not *talking* across a table.

Video-conferencing has been made possible by the development of techniques to "compress" the video information so that it can be *transmitted* via ordinary telecommunications *circuits, rather than dedicated,* high-speed data circuits.

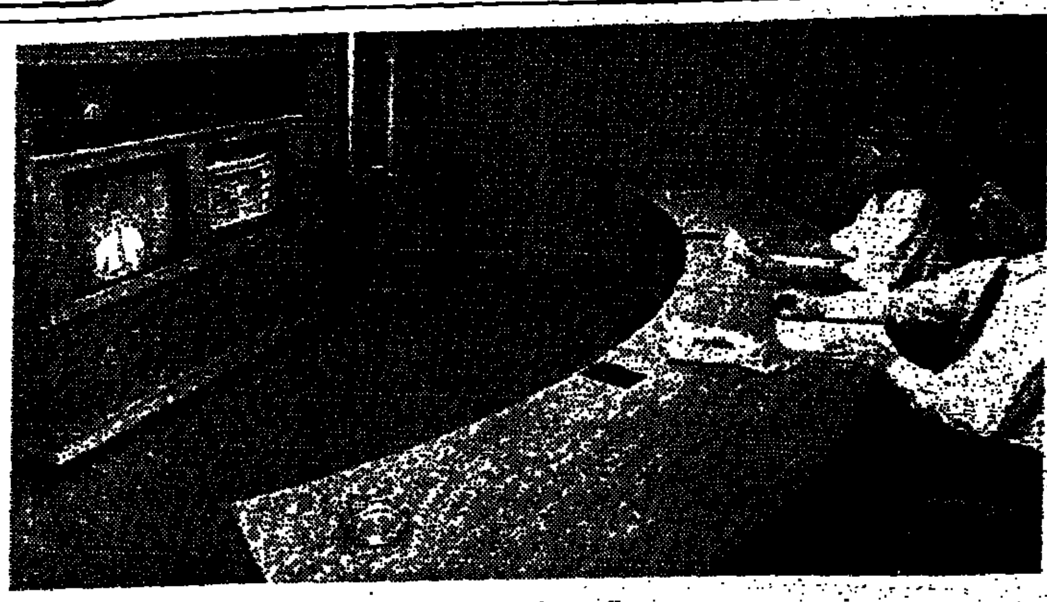
Initially, however, in view of the high cost of the specially built equipment, the limited degree of compression then obtainable and the high cost of *telecommunications paths,* it did not become widely used.

Since then, *improvements in* technology now enable adequate performance for most business purposes to be obtained from much more widely available, low cost, digital telephone lines.

Additionally, international standards are evolving which will result in compatible systems across the world.

According to Tim Duffy, GPT's director of data systems "a turning point has been *reached in the acceptance of* business video communications .. GPT has seen growth in video-conferencing in the region of 40 per cent in the past 12 months. Once users can dial-up video meetings as easily as *making* a *telephone* call, I believe the medium will become commonplace."

An example of a large company which takes video-conferencing seriously is the Ford Motor Company. It has an international *network* with links between Detroit, Brentwood in Essex and the company's design and R&D centre at Merkenich in West Germany.



Face-to-face meeting via a GPT video-conferencing suite

How new technology connects offices for cost-effective video-conferences

Worldwide link-ups

This involved a large investment in specialised *equipment* and in suitable telecommunications links. If they were just starting today, the required investment would be appreciably lower.

When companies initially *consider video-conferencing,* if they were not put off by the high costs, their initial considerations are generally concerned with direct savings in the costs such as air fares and hotel bills and so on, rather *than in improved business effi*ciency. They rapidly find, however, that not only is the decision-making process accelerated, information flow between communicating establ ishments is greatly enhanced.

Where executives have to travel, for example, across the Atlantic *to attend* meetings *it* is a very inefficient use of time. (Putting aside the frequently unspoken desires to get away from one's office or *even home.*) *It is impossible to* contact that executive for an appreciable amount of the trip while far more time is spent in travel than in the actual meetings.

Furthermore, no matter how carefully *one* prepares *and* briefs oneself, almost invariably some points are overlooked. The result being that the meeting is not as productive as possible.

On the other hand, when using a video-conference link, specialists can often be called *in without delay to clarify* a point. Where technical matters are involved, meetings directly between specialists obviate misunderstandings.

In addition, face-to-face meetings between staff at all levels will *enhance co-opera*tion. After all, as it is more re-assuring to deal with a person you know, rather than a faceless voice, video-conferencing can cement relations between establishment where the people are *distant in mind* as well as miles.

As *ISDN* becomes widely available it will provide the digital circuits necessary to allow dial-up operation of video-conferencing to become *more* universally applicable.

However, even today dial-up digital circuits are *available* from both British Telecom and Mercury which can be used for this purpose and more suitable equipment is becoming available.

Earlier this year, Bain & Co, the British subsidiary of the international management consultancy installed what *is said* to be the first dial-up video-conferencing system.

Manufactured by Picturetel of Massachusetts, which claims to hold over *80* per cent of the world installed base of low data rate systems, it uses the equivalent of two ordinary 64k-bits (digital) telephone *lines instead of fixed broad*band and satellite links.

As the cost is roughly *£100* per hour, once the equipment is installed, there is no financial barrier to transatlantic face-to-face meetings.

Furthermore, they can dialled up as and when needs arise, without any long term planning, because one does not have to book international circuits.

Iain McKeracher, marketing *director of Data & Control* Equipment, the company which provided Bain with the equipment says that "the financial community has been the first in the UK to use dial up video-conferencing systems. New users will *quickly take up* the technology for all manner of reasons – besides the obvious savings in travel costs and unproductive executive travel time."

Some, according to McKer*acher, "already claim that deci*sion-making is made more quickly and effectively." In addition, people's commitment to the actual decision is more *positive* as they were able to participate in the 'meeting.' This is a vital factor in an increasingly competitive age.

Adrian Morant

Della Bradshaw on prospects of teleworking and operating from mobile offices

Technology takes more offices into homes

ALMOST every day there is a new electronic gizmo announced which, it is claimed, will revolutionise life in the office. But perhaps more revolutionary is the way technology is providing the means to do the traditional office job from outside the traditional office.

Developments in communications and computers now mean that company employees can perform a full day's work either while on the move — using the latest plethora of mobile devices — or from their own home — teleworking or telecomputing.

The tumbling price of electronic hardware has persuaded more and more companies that it is economically viable — as well as technically feasible — to operate in this way.

Central to the so-called "mobile office", for example, is the mobile phone and portable computer or facsimile (fax) machine. The costs of a portable computer, telephone and modem — the device which converts the digital signals from the computer into the analogue signals which are sent over the airwaves — is about £5,000.

Teleworkers can be set up in their own home for a similar figure — they usually rely on a PC, fax or telex machine and a telephone and modem.

Take Mr Ronnie Carroll as an example: as a food broker he negotiates the price of delicacies as diverse as tinned ham and evaporated milk. He looks out his farmhouse window over open fields in the Norfolk countryside while he haggles with producers and purveyors over their wares. Mr Carroll is equipped with an Amstrad PC, telex and fax machines and a telephone.

He is one of growing number who believe working from home provides the answer to their employment needs. The Henley Centre for Forecasting in London, for example, predicts that more than 4m people will be working from home in the UK by 1995, in a full or part-time capacity.

The advantages for the individual's quality of life are obvious, but allowing staff to work from home can also bring commercial organisations long-term financial savings — on overheads, such as heating, maintenance and office space, for example. And employing staff away from the main skill centres can also reduce the salary bill.

In addition, companies find they can often retain skilled staff who otherwise would have to leave for personal reasons — bringing up a family is probably the most obvious example. A combination of a shortage of skilled staff and a familiarity with the technology, has meant that — as with the mobile office — teleworking has been pioneered in the computer industry.

Large computer companies such as ICL, Rank Xerox and Bull HN Information Systems (formerly Honeywell Bull), all employ teleworkers.

In addition, companies such as the FI Group, a London-based software house, (formerly F International), were set up specifically to employ women working from home. Other companies, such as Synthesis, of Surrey, are now following a similar formula.

A teleworking system can be set up for about £5,000

According to the Henley Centre, working from home is suitable for any management or professional tasks which are analytical, administrative or clerical. With most computer companies, the work done is developing or writing software.

Getting that software back to the central office can either be done with low-tech methods, such as collecting or delivering the completed disk, or by more high tech methods — via the telephone line. A telephone line and a modem or the public packet switched networks, dedicated to data traffic, can be used for sending chunks of data back to base.

For workers who need to have continual access to information held on the corporate database, a dedicated line can be set up, with software at either end to ensure the security of the data.

For individuals who have set up a mobile office, the communications link is provided over the radio waves, through the portable or car telephone. In the UK there are already over 500,000 carphones on the two cellular radio networks, and the figure is growing rapidly.

Computer companies, such as IBM in the UK have been among the first to equip their salesforce with devices to communicate with head office from their cars, such as for sending orders back to base as quickly as possible.

Others accruing benefits include entrepreneurial one-man businesses or anyone needing to transmit written information quickly — a journalist, for example.

For anyone that spends just a couple of hours a day in the car, travelling to and from work, the difficulties and cost of setting up a mobile office are unlikely to be justified.

As most fax machines need to run off 240 volts of power, they need a power inverter to work from the car battery, for example. And because they are designed to work in buildings — not cars — they are fitted with a plug to be inserted in the office telephone socket, not the car telephone.

Both working from home and teleworking bring their own problems, however. As well as the technical difficulties which often plague such ventures, Carroll warns that those who work alone put there character to the test. "You have to work as if someone is standing over you with a time clock. If you're fairly lazy and not self-disciplined, then it's not for you."

An increasing number of people are planning to work from home

However, companies that have used teleworkers have demonstrated that their employees actually work harder at home than in the office, because there are fewer distractions in terms of office gossip and tea trolleys.

To ensure that the employee is suited to working at home, companies such as Synthesis ask each applicant to take apsychometric test as part of the interview process, reports Chrystal Gray, chief executive.

And for those that find working at home a lonesome task, many companies, including FI, are setting up work centres around the country where groups of teleworkers can get together to benefit from the social advantages of working in an ordinary office.

That idea of groups working together, but away from the central office, is an idea being promoted by the UK Government to try and regenerate inner city areas. Project Frontline, is a scheme to train 500 people in relatively scarce skills, such as data processing. They will then work remotely from inner city offices for companies based in London and the South-East.

New ways to transmit text

Continued from page 5

information from head office to its 1800 strong chain of bookies.

The IGG Data-Text, which combines advanced technology with the established TV broadcasting system, was chosen in preference to autodial modem, post, telephone, fax, telex and courier because it offers instantaneous and simultaneous message transmission to any number of locations, capital costs are lower and transmission costs remain the same no matter how many receivers are being used.

By the mid-to-late 1990s, when the universal ISDN (Integrated Services Digital Network) is fully implemented in all major countries, we are promised single-line interactive communications between all kinds of communications services including telephone, fax, telex, audio and video conferencing, on-line databases, data and text broadcasting and EDI (electronic data interchange).

The various communications authorities and manufacturers are hammering out the standards that will make that possible from the desktop. The one most pertinent to electronic mail, and the first to be agreed is X.400, the CCITT recommendation for linking computers of different manufacture to enable them to exchange messages.

The next step, announced a couple of months ago, was the X.400 API (applications program interface) gateway standard, agreed by a number of manufacturers including BT, which will allow proprietary mail system s to actually swap correctly formatted messages.

Much of the future success of electronic mail will, then, no longer depend so much on compatibility standards but on user interfaces, i.e. the software that determines the ease and speed with which services and facilities can be accessed from desktop terminals.

Such solutions, however, will be heavy on computer memory; a PC equipped with a modem and simple communications software just will not suffice. Thus, there is bound to be a growing demand for more powerful workstations

That will lead us all more into the realms of true office automation where users not only want to manage diaries, schedule meetings, access the various text communications and information services but want easy transfer of editable documents on a national and international basis.

Here, yet two more agreed standards, ODA (Office Document Architecture) and ODI (Office document Interchange Format), will be important in the years ahead for they provide a common understanding of logical structure (i.e. paragraphs, chapters, address, headlines), layout structure (number of pages; page format) and content portion (text, graphics and data).

Julie Harnett

Office relocation and moving the technology

No simple task

BRITISH PETROLEUM, the world's third largest oil group, decided recently to amalgamate its two headquarters (one in London's Victoria, the other in Hemel Hempstead) into one site.

There were two main reasons for uprooting the 700 staff involved: firstly, neither of the buildings that BP occupied could adequately handle the information technology required; and secondly, the company found the geographical division inefficient in operational terms.

The planning for the move to the outskirts of Hemel Hempstead started in 1984 and the building programme began in 1986. By the time the final move occurred, two years later, there was a full team of 13 BP staff working flat-out on move — as well as an army of external consultants and architects.

The job of moving staff and 110 computers took ten weekends to complete, although the size and scale of the BP relocation — and the reasons behind it — are not unusual.

According to a report by the property specialists, Debenham Tewson & Chinnock, one-in-three of the 100 major office occupiers interviewed were considering a move and 85 per cent of those considering moving gave "company growth" as a reason.

Indeed, those companies surveyed in the report expect to grow by 19 per cent up until 1990 while floorspace requirements are expected to increase by as much as 35 per cent.

Companies relocate for a variety of other reasons, says the report, *Office Needs: The Occupiers' View*. Cost problems with existing premises and expansion or contraction are *favourite reasons. In an effort* to save costs, many companies such as banks and insurance companies have favoured the partial relocation or the removal of the back-office function from a high-cost to lower-cost location.

Whatever the reasons, moving offices is like moving house: a traumatic experience for all involved from senior managers to office staff. Ancillary equipment can suffer, too. It is time-consuming and a great drain on financial and emotional resources.

According to John Anderson of Relocation Management Associates, the upheaval "is not to be under-estimated. Moving is a huge capital investment and management should know precisely what they are doing and budget properly — which they very often don't do. The thing about moving is that it brings out the worst in everybody if not handled properly."

As well as clear forward-planning with time and cost contingencies for those unforeseen events, open and effective communication with staff is something that can be overlooked. As Philippa Vernon-Powell of the Office Relocation Company points out: "All staff have a gripe about something — and management don't think that through when planning a move."

She maintains that while the management worry about the amount of floor space per workstation, they should also consider the psychological effect on staff — "they will be desperate to know how to get to the new building, where the supermarket and sandwich shop are, and how the office vending machine works."

More consultants are entering "the moving business"

As with the domestic move, it is easy to under-estimate the amount of preparation needed, the costs involved and the mental toll. The difference is that — unlike a domestic move when the new home-owners can eat their sandwiches of the top of the packing cases for several days — offices have to carry on functioning. Downtime cannot be allowed to be *part of the working vocabulary.*

With so much at stake, what are the best ways of attempting such a monumental upheaval?

Many companies feel that they have the resources in-house to cope with such an undertaking. The responsibility may fall to the facilities manager; but it could also be the office manager, financial director, and for the smaller firm with 80 staff or less, the managing director.

"However," advises Tad Zurlinden of the Relocation Management Association, "handling a move in-house can be a short-sighted decision. Management need to ask themselves: has the person put in charge of such a job actually done it before? The chances are they have not."

But along with finding the right experts and shifting the technology, there are people to consider. Will there be a pool of staff available in the new area to which you are locating?

What will be their wage expectations? What is the situation regarding tax relief on relocation expenses? Will the interior design of the new office be to a standard that will induce the existing staff to want to go there in the first place?

The rising levels of complexity in the office move have attracted a variety of other specialist organisations who claim to offer a one-stop,"solve-all" relocation service.

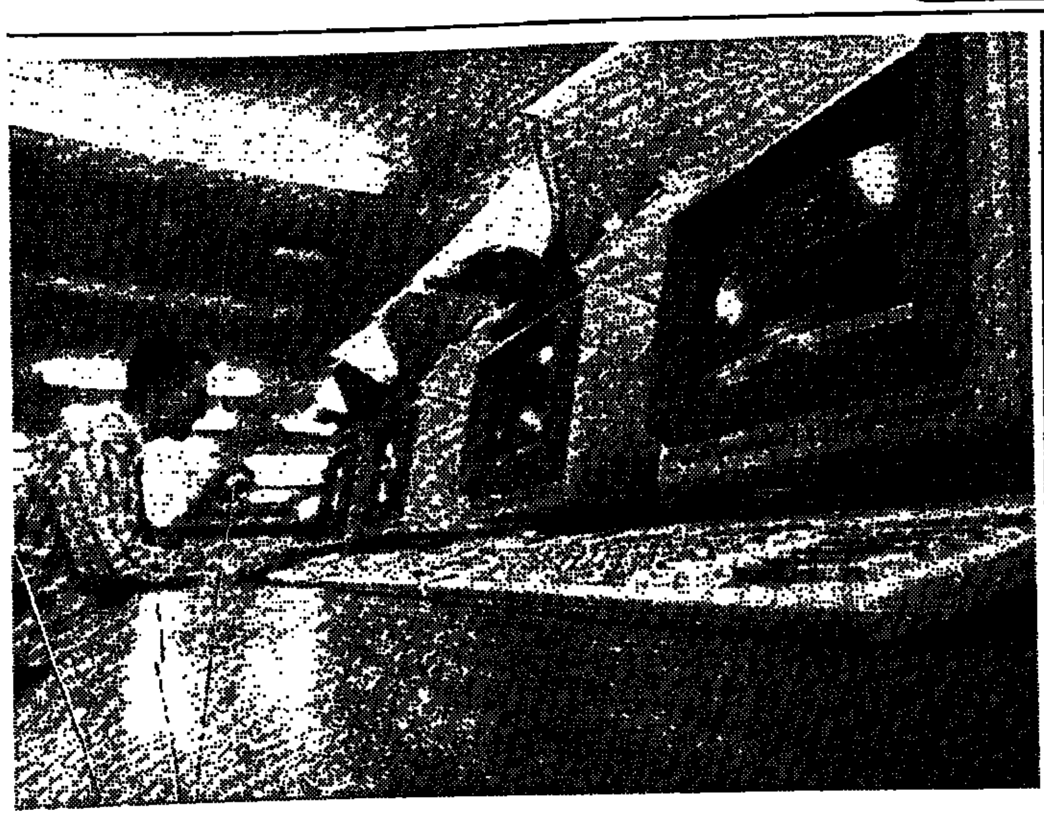
Design consultancies such as McColl, Business Design Group and Fitch-RS, for instance, will bolt-on a relocation service as part of their design packages.

Invariably computers will be considered too delicate and risky to be moved by the company themselves. It is usual for either the computer manufacturer/distributor to be called in to de-commission equipment or to job handled may by a technology specialist.

But aside from design and computer consultants, management consultants have moved in on the business of moving. Organisations such as Relocation Management Associates regard relocation as the very stuff of management consultancy: this company comprises 26 *management consultants* who specialise in moving — clients are offered a master checklist with more than 68,000 *headings, covering the entire* process.

And then there is the new breed of moving specialist: the dedicated relocation company. The Office Relocation Company, for example, will handle all the administration, organise the supplies, source furniture and even find art for the walls. It will even arrange the moving-in party — but as anyone who has recently experienced an office move will tell you, companies are often too exhausted to celebrate when they finally make it to the new venue.

Wendy Smith



MINI COMPUTERS perform a wide variety of applications throughout industry, both in public and private sectors. Pictured here are Hewlett-Packard's HP 3000 mini computers. The company this year moved into the number one position as America's "most admired computer company" in *Fortune* magazine' annual corporate relations survey, after a poll among nearly 8,000 senior executives and financial analysts.

A puzzle over PC fax

PC FAX is a new buzz-phrase in office technology. While, on the face of it, PC fax appears an exciting development for computer-users, in practice it could be more trouble than it is worth. True, it saves having to print a document in order to fax it; confidential faxes are automatically stored on receipt; and it is easier to use a PC for storing destinations numbers.

But, with most PC boards, you have to convert your documents in to ASCII for transmission and that can be inconvenient; and, if you want a hard copy of a message, you have to use the PC printer and that will take far longer than a fax machine.

Another drawback is that you cannot send pre-drawn graphics images unless you enter them into the PC using a scanner, and then you may as well buy a fax.

If, however, you only need to transmit word processed or PC-processed information, then a fax board may be a more cost-effective solution if you have a workstation with sufficient memory capacity. But look for one that comes with menu or icon-driven software that is really simple to use.

One danger concerning the phenomenal growth of fax, highlighted by Meredith Fischer of fax network specialists, Pitney Bowes, is that many organisations are beginning to take fax for granted, thinking of it as a very low-risk purchase.

However, as has been shown in the personal computer marketplace, uncontrolled purchasing at departmental or office manager level could eventually be a cause of major concern, with telecommunications costs escalating beyond sustainable levels.

A simple solution being launched by Certacom at the TMA exhibition (23-25 October at the Metropole, Brighton) is the Fax Manager, a central switch which manages the fax traffic and provides full call-logging and destination records with time and date stamp and with all messages going through the system being archived.

However, Pitney Bowes recommends that organisations with a large number of fax machines already in place should undertake a fax audit first: "We will even do it on their behalf completely free of charge," says Meredith Fischer.

"You need to know who users are communicating with, how many pages they send a day, what they are spending on telephone systems and the type of telephone systems being used. You have to look at time zones of message destinations and a whole raft of other aspects.

"Then and only then can you determine the best solution, ie where you need memory machines, who needs confidential mailboxes, where you need to prevent junk mail and which of the word processing operators only transmit fax messages and would be better off with PC board than a fax machine.

"I believe there are many hidden networks out there and organisations should take stock now, before more office managers go off buying fax machines willy nilly."

Julie Harnett

Case study

Technology cuts through the paperwork

IN SPITE of the availability of computer systems, microfiche and image-processing, surveys in the US show that 94 per cent of corporate information remains on paper.

Paper-based administration often cause delays in the financial services sector, although commercial success in the increasingly competitive mortgage market, for example, depends on a good range of products backed with a first class customer service. In the race for the right property, borrowers expect rapid answers from their chosen lender.

These were the challenges facing Hammersmith-based Citibank Mortgage, part of Citicorp, the worldwide banking group. A review of methods revealed that more than 35 per cent of customer file requests could not be met without some delay and none within 24 hours from the off-site storage facility.

In addition to the difficulties of tracing files already issued, Citibank Mortgage felt that its customer service operation was being gradually undermined. Several options were considered by Citibank's senior management. On-site storage was ruled out by lack of space. Microfiche would have solved the space problem, but did nothing to reduce retrieval delays and was expensive to keep up-to-date.

Citibank then evaluated Document Image Processing (DIP), a technology reviewed in depth on page 4 of this survey. As well as overcoming file retrieval and storage problems, DIP also offered Citibank additional processing benefits. Its availability to control paper flows was considered an important factor.

Several DIP systems were evaluated – with the final choice going to Olivetti's FileNet system, pictured above, centre. Installed in August last year, the system cost over £1m and now covers several areas including mortgage application, customer correspondence, funds transfer, insurance and redemptions.

Based around an optical storage and retrieval 'jukebox' with a maximum on-line capacity of 85m pages, the application uses "Workflo," a powerful high-level language used to manage information-flow to, through and from the system.

All documents are scanned and indexed on arrival and are subsequently available for simultaneous inspection within 20 seconds, on request.

Over 200 mortgage applications a day can be processed, standard replies generated and information exchanged with Citibank's IBM 3090 mainframe computer. Some 52,000 A-4 pages can be stored on one 12-inch optical disk – around 2,900 customer files. According to Citibank's strategic Systems director, Mr Brian Howells, the DIP system was "immediately accepted" by the staff and is giving significant process benefits.

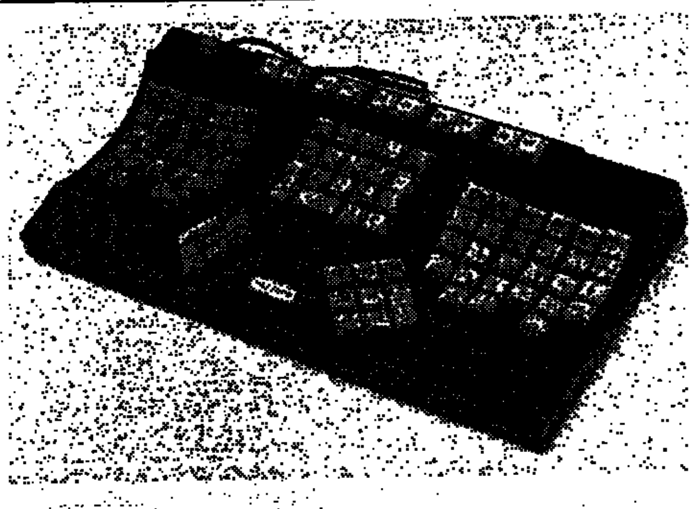
High acceptability, ease-of-use and improved control-procedures have all led to improved customer service. Productivity figures from the six Citicorp DIP installations in the US have suggested that efficiency gains of about 40 pert cent are possible. Other users of Olivetti DIP systems in the UK include the Britannia Building Society for mortgage operations, British Telecom Mobile Communications' customer services department, as well as the press-cutting libraries of several national newspapers.

PICTURED here is the control centre of Securicor Granley in Manchester. The equipment used here is from TR Financial Communications, the business communications specialists.

The group, a subsidiary of the TR Group within Cable and Wireless, has 200 sites in the UK, and is increasingly involved in security industry applications, as well as communications for police and ambulance control centres. These sites use the ViAX telephone system, as described on page 3 of this survey.

TR Financial Communications, formed in 1984, is now the second largest supplier of dealer boards in the UK, second only to British Telecom.

The company, which is based in the London Industrial Park, Beckton, East London, has a turnover of around $10m. It distributes and supports VBand communicastions equipment and Multiview digital feed and decision-support software packages, together with an integrated video-switching system.



☐ With the growing incidence of repetitive strain injury suffered by keyboard users, new interest is being shown in an ergonomic keyboard, above, developed over the last ten years by Maltron of East Molesey. The usual Qwerty letter-layout is retained, but the board reduces the strain induced by the standard flat board design – these strains are the root cause of the pain and RSI, claims Malton. The new board fits the natural shape of the hand and users can master the system with only a few hours' practice.

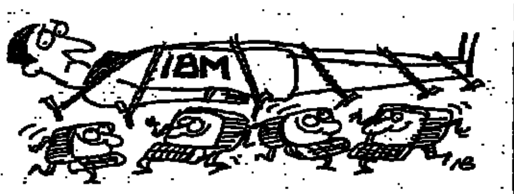
FINANCIAL TIMES
COMPANIES & MARKETS
Monday October 23 1989

INSIDE

Scientific soldiers man the thin red line

While bigger groups re-position themselves to take a bigger share of a stagnant defence equipment market, medium-sized companies face hard choices. Do they get out of areas where the cost of keeping up is too high? Do they try to make their niches more secure? Do they go for international links to gain entry rights to other Western markets? United Scientific Holdings was one such UK company trying to resolve such dilemmas when last month it became subject to a hostile bid. David White looks at the ups and downs of this one-time star of the defence business. **Page 25**

Sizeable handicap for IBM



Announcing a 30 per cent fall in IBM's quarterly profits last week, chairman John Akers statement sought to convince shareholders that, if they remained faithful and trusted management, all would be well in the long term. This view, however, contains an implied assumption that while the ingredients of IBM's business may be changing, the master recipe remains as sound today as it was in the past. A less sympathetic analysis might conclude that soufflés do not rise twice. Indeed, the once invincible IBM today looks open to some of the more telling criticisms levelled at Britain's BAT, writes Guy de Jonquières. **Page 46**

Saab searches for a European co-driver

Sweden's troubled Saab-Scania company is anxiously seeking agreement with a major European car maker, after the collapse last week of its talks with Ford of the US on joint co-operation. Fiat, of Italy, and Peugeot, of France, are believed to be having separate discussions on a possible deal with Saab-Scania, the car division of which looks set to lose over SKr1.8bn ($280m) this year. Robert Taylor reports. **Page 23**

Market Statistics

Companies in this section

The first of Norway's financial longships

To compete at home and abroad two of the country's top three banks plan to merge. Karen Fossli reports.

The planned merger between Bergen Bank and Den norske Creditbank (DnC), two of Norway's top three banks, to form Den norske Bank (DnB) is the single most dramatic event in Norway's 130 years of banking history.

It will create Scandinavia's seventh largest bank with combined assets of NKr210bn ($30bn). Today the boards of the two banks will consider proposals for the exchange and valuation of their shares, the first stage in implementing the merger plan which was announced earlier this month. It subsequently received a public endorsement by Mr Gunnar Berge, Norway's finance minister.

This endorsement paves the way for a radical reversal in government policy which traditionally has sought to limited the size of Norwegian banks in the interests of promoting domestic competition. Today, however, the need to strengthen financial institutions – weakened by heavy loan losses in the past three years – so that they can compete more effectively at home and abroad has triggered the change in policy.

Scandinavian banks in general are worried about the competitive challenges they face as Western European financial markets become more closely integrated. After experiencing their roughest period since the 1930s Great Depression, Norway's banks are particularly concerned for they are poorly placed as 1992 approaches.

With a population of only 4.2m, part of the problem has been the limitations of an "over-banked" domestic market. In addition, the operating costs of Norway's top three banks, caused mainly by a high rate of inter-bank transfers among customers, are the highest of the top twelve Scandinavian banks.

One of the principal advantages the two banks see in the merger is economies in this area. They claim that the merger will allow total operating costs to be reduced by between NKr500m and NKr750m annually.

But the prospect of reducing their costs base has only been one factor which has led the institutions to seek to strengthen their position through a merger.

Norway's oil-dependent economy was ravaged by the plunge in world crude prices in 1986. The domestic recession which followed led to a surge in loan losses, beginning in the oil service industry, but spreading throughout the economy. The past two years have seen record levels of commercial and personal bankruptcies and the banks are expecting their loan losses to continue for at least another year, although they believe the overall level is diminishing.

For the first eight months of 1989, estimates of losses on loans and guarantees are NKr994m for Bergen Bank; NKr911m, for Christiania, the country's biggest bank, and NKr1.39bn for DnC.

Faced with these problems and the challenges ahead, executives of the top three banks have warned throughout this year that individually they will seek partners – preferably in Norway, or, reluctantly, more widely in Scandinavia – to try and strengthen their position.

The merger between Bergen Bank and DnC has nevertheless raised questions about the timing of such a bold move.

"The merger comes at a time when each bank is seeking to recover from a period of financial difficulties with credit losses at very high levels by international standards. The extent to which there are lingering financial difficulties may reduce the time that management has to successfully execute the merger," believes Standard and Poor's, the US-based credit rating agency.

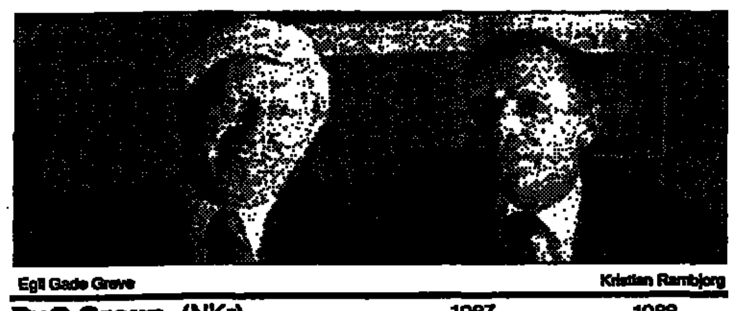
Mr Egil Gade Greve, chief executive of Bergen Bank, will head DnB and Mr Kristian Rambjoer, head of DnC will become his deputy.

Mr Rambjoer, has already been through the experience of slimming down an overweight institution. In the past year he has successfully turned around DnC. He shed 1,200 staff and improved operating profitability three-fold to NKr1.15bn in the first eight months of this year. In 1987, the bank suffered an operating loss of NKr254m.

A concern is the task of integrating the two banks' overlapping domestic and international operations. But this will be made easier because the banks have compatible computerised data systems. Moreover, on the domestic side, the two banks fit together quite well. Bergen Bank is mostly in the western and southern regions of Norway while DnC is mainly in the east and north.

Oslo, however, presents a bigger problem for there is a large overlap in centrally located banking operations.

By early-December, the next step in the link-up, a final merger proposal, will be presented to shareholders at extraordinary general meetings. DnB is meant to become one financial unit from January 1, 1990. But the merger process is not likely to be fully completed before 1991. DnB will face the formidable task of improving its core capital and quality of assets. Currently, there is no Norwegian bank which can meet the Bank for International Settlements Cooke Committee requirements for equity ratios.



Egil Gade Greve — Kristian Rambjorg

DnC Group (NKr)	1987	1988
Net losses on loans & guarantees	1,194m	1,808m
Net profit/(loss)	(1,470m)	(965m)
Total assets	127.5bn	102.7bn
Capital base	6.9bn	6.2bn

Bergen Bank Group (NKr)	1987	1988
Estimated losses on loans & guarantees	502.6m	1,178.6m
Net profit *	210.9m	43.4m
Total assets	99.3bn	106.7bn
Capital base	6.2bn	7.05bn

* Before year end adjustments

The US lobbies overreach themselves

By Anthony Harris in Washington

First, a straw in the wind. Nearly a year after its election victory, the Bush administration still has 77 vacant senior posts for which it has not even nominated a candidate. Last week it got around to offering a medical appointment to the brother of Senator Robert Packwood, a powerful Republican who has played his own interesting part in the events of the last few days.

What, Dr Packwood was asked, was his attitude to abortion? If that was the question, he replied, he wasn't interested in the answer; they had better look for another candidate. The abortion thing, as the President no doubt calls it, has emerged as the dominant political issue of the fall; it will probably be decisive in many pending elections at the State level, and may well be in future elections, too. State victories could give the Democrats enough votes to ensure that the electoral re-districting which is required to reflect population shifts will not give the Republicans the advantage they expected. That would affect the political balance for a generation.

Dr Packwood's contempt is a perfectly apt comment on this Bush obsession, but it does not explain how a US government which is facing huge challenges in defence, foreign and domestic policy has got sidetracked so dangerously. This in turn is part of a larger question – the awful banality of US politics at the moment. This has provoked one of those apocalyptic questions which Time Magazine likes to ask every decade or so – "Is Government Dead?"

This question, which has been dominating the news-stands for the past week, echoes another which Time raised in the permissive '60s: "Is God Dead?"; and the answer to that question was that fundamentalist religion was just starting to make a comeback. Fundamentalism is in retreat, thanks to the scandalous behaviour of some of it best-known evangelists, but the abortion issue remains as its monument.

The political wing of fundamentalism, the so-called moral majority, was one of the most effective parts of the right-wing coalition which helped elect President Reagan, and was mobilised again last year by Mr Bush. The right-to-life movement still has the fervour and the grass-roots power which the broader movement seems to have lost, but it does not have majority support: its success has provoked a counter-revival of feminism.

The result could hardly be worse for the White House. The right-to-lifers can swing enough votes to push some of their sympathisers to victory in Republican primaries; but the same convictions threaten to defeat these candidates in the elections. Mr Bush, a prisoner of his own right-wing rhetoric, can only squirm.

It would hardly be worth drawing your attention to this American tragi-comedy if it was unique; but in fact it says a lot about the whole American system. US political candidates must win primary elections among their own supporters, and then depend upon heavy private financial support to win the subsequent television campaigns.

This combination makes American candidates more dependent than politicians in any other country on organised lobbies. It means that failing a clear national crisis, or strong national leadership, the political agenda is set by special interests.

Some years ago Professor Mancur Olson argued that this is the fate of all systems, and explains why political success carries the seeds of its own decay, since it creates the soil in which lobbies thrive.

This is persuasive reading in Washington; but to a foreign observer, it looks more like a specifically American diagnosis. Living in a city where registered lobbyists are numbered in tens of thousands, reading newspapers where defence contractors buy full-page advertisements to try to get Pentagon decisions reversed, attending dinner-parties which are all about influence-peddling is a strange, specifically American experience.

It is hardly a new one, either. American history is peopled with triumphant special interests – the railway barons, the trusts of the later nineteenth century, the oil interests which brought down President Harding; and all of them were in the end defeated by the system itself. On this reading we should look not for a one-way process of decay, but for a cycle, in which special interests advance until they overreach themselves, and are driven back.

The fundamentalist lobby seems to have reached this point, and it may not be the only one. The military-industrial lobby, which thrived during the cold war just as President Eisenhower feared it would, now looks likely to be defeated by detente and budgetary constraints.

Nearer home, the Wall Street lobby, which has so successfully pushed for deregulation, is now at least shaky, as LBOs are now seen as undermining US industry and its financial structure, and those in Congress who spoke for the thrift industry are under investigation. The most powerful of all current lobbies, and potentially the most dangerous, is the old-age lobby, the American Association of Retired Persons, or AARP, some 25m strong.

It is this group which has blocked the taxation of social security benefits, a sensible policy supported by the Budget director, Mr Richard Darman, and the chairman of the Council of Economic Advisers, Dr Michael Boskin, who would be an unbeatable alliance on most issues. The grey wolves, as the retired are known, scored another triumph last week with the abject repeal in both houses of the catastrophic health insurance scheme. This was enacted only a year earlier to ensure that sick old people could be treated for serious illness without becoming paupers.

This could be another Pyrrhic victory. The repeal was secured by a write-in campaign by the more affluent among the retired, who resented having to pay a surtax of up to $800 for benefits they already enjoyed from private health insurance. Only now are the poorer, uninsured majority waking up to what has been done to them.

While it is much too early to conclude that Congress is now ready to complete the lobbying cycle, and stand up for the general good against special interests, it is at least possible. The crises of private debt, health insurance and the defence burden will continue to demand attention, and all argue for a reaction; and Congress is beginning to show just a little spine.

It did so this week when it voted down the President's proposed constitutional amendment to protect the flag, a pure piece of gesture politics, and offered another Packwood straw in the wind: Senator Packwood, a sponsor of the measure, voted against it, citing the Bill of Rights.

Economics Notebook

Questioning the currency of Lawson's Much-Binding view

MR NIGEL Lawson's Mansion House speech last week confirmed that the Chancellor will press on with his plan for competing currencies when European Community economics and finance ministers meet again next month.

He lifted the veil sufficiently to underline that the essence of the British alternative to Mr Jacques Delors' idea of European economic and monetary union based on a single European currency and central bank was permissive, not mandatory.

"This is not a matter, as some have fancifully suggested, of requiring the village shopkeeper in Much-Binding-in-the-Marsh to accept payment in drachma," the Chancellor said. "He would be as free to decide what forms of cash he will accept as he is to decide whether or not to accept a particular credit card."

Although Mr Lawson said the plan would give Governments "every incentive to minimise inflation," Britain's European partners remain overwhelmingly sceptical about it.

Some of the arguments that can be marshalled against the competing currency plan appear in an article by Christopher Allsopp of New College, Oxford, and K. Alec Chrystal of the City University Business School in the latest Oxford Review of Economic Policy.

While they say that adoption of the competing currency idea could result in one currency becoming universally accepted in the EC, they argue that "in reality, it would be likely to lead to a multi-money system which increases transaction costs enormously and lowers the efficiency of the market system."

Multiple monetary standards would pose other problems. "Having several monies in parallel use is even less desirable than having multiple weights and measure systems in operation," the two economists say. Although Mr Lawson believes retailers should be able to cope with his plan, Messrs Allsopp and Chrystal raise other difficult questions.

They ask whether companies could choose their reporting currency. Would stock exchanges have to quote in 12 currencies simultaneously? And would governments accept tax returns and payments drawn up in any EC currency?

Regional strains

While Mr Lawson sees his competing currency idea as a weapon against inflation, some economists argue that Britain will be unable to overcome rising prices unless it tackles the North-South divide.

Writing in the September issue of the Royal Bank of Scotland Review, J Parry Lewis, Emeritus Professor of Economics at the University of Manchester, urges the Government to create a second capital region as an alternative focus for growth to London and the South East.

According to Prof Lewis, the recent strong growth of the south east spreads inflationary pressures throughout Britain. Higher wages for workers in the London Docklands and Channel Tunnel developments attracted labour from elsewhere in Britain causing regional shortages and rising wages in areas remote from the South East.

Congestion in the South East has also generated additional costs which spread outside the region.

These include higher prices for goods produced in the South East because of increased transport and labour costs.

Taxpayers throughout Britain have also been obliged to pay for new roads in London or regional bonuses for school teachers and civil servants in the South East.

The Government's policy of raising short-term interest rates to combat inflation will not solve these problems, Prof Lewis argues.

Congestion in the South East will continue to exert "its massive long-term inflationary pressures" and will get worse with completion of the Channel Tunnel.

Prof Lewis proposes creating a second capital region far enough from London to act as a counter-magnet for growth.

Not surprisingly, given the publication in which his ideas are aired, Edinburgh and Glasgow are named, along with Newcastle, as possible candidates for expansion into a metropolitan area of four or five million people.

To help the process along, he suggests that the South East should be left "to stew." There should be no new spending on easing traffic congestion or improving services such as the post or hospitals in the South East. In that way, people and businesses would be more ready to relocate to the North.

Prof Lewis's scheme must be a political non-starter. But his ideas on congestion and inflation merit some reflection.

Especially telling is his contention that, "every pound spent easing congestion in the South East makes it worse and adds to rising prices more than it would if spent elsewhere."

Peter Norman

THIS WEEK

UK FINANCIAL markets, having recovered from the dramas of last week, face another daunting hurdle tomorrow when the September trade figures are released.

After the shock deficits in July and August, the markets are hoping to see a distinct improvement in September's data. A sharp fall in September car sales, a reduction in stock levels by companies, and an increase in oil exports, are all expected to contribute to a better trade picture.

The consensus of analysts' forecasts, compiled by MMS International, the financial research company, is for a current account deficit of £1.6bn, compared with the £2bn ($3.1bn) trade shortfall recorded in August.

City analysts have warned that if the deficit is anywhere near £2bn, the pound could come under renewed and heavy selling pressure in the currency markets. If intervention by the Bank of England subsequently failed to halt sterling's decline, the pressure on the Government for another rise in interest rates to protect the currency would intensify.

The Confederation of British Industry's (CBI) survey of industrial trends is also released in the UK tomorrow. The survey will be closely watched because it will include replies from British business received after the latest interest rate rise.

The City expects the survey to show a considerable downturn in output expectations and investment plans, and that confidence has been sapped further by base rates of 15 per cent.

In the US, the advance estimate of gross national product (GNP) for the third quarter of this year is released on Thursday. The MMS consensus is for a 2.4 per cent growth, compared with 2.5 per cent in the second quarter.

The important set of figures in West Germany this week is today's preliminary consumer prices data for October, which could provide a focus for fears of accelerating inflation. The figures are expected to show an increase in consumer prices of 0.2 per cent for the second month running, taking the annual rate of growth to 3.2 per cent. This would be the highest inflation rate in West Germany seen this year.

Other events and statistics published this week (with MMS International consensus in brackets) include:

Today: West Germany, export and import prices for September. France, trade balance and consumer prices for September. Canada, retail sales for August.

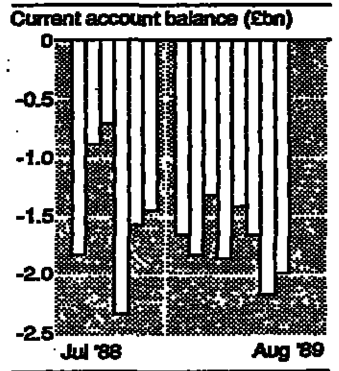
Tomorrow: UK, building society receipts (£4bn) and cyclical indicators for September. US, durable goods orders (down 1 per cent) and shipments for September.

Wednesday: UK, construction/new orders for August. West Germany, weekly money supply figures and wholesale turnover for September. Australia, balance of payments September. US, existing home sales for September.

Thursday: US, import/export prices third quarter 1989. West Germany, Bundesbank council meeting.

Friday: US, personal income and consumption for September. Japan, current account, consumer prices and preliminary industrial output for September.

UK trade deficit



INTERNATIONAL BONDS

Fixed-price reofferings bring a little clarity to muddied waters

AS THE WEEKS go by, the muddied waters of syndication practice on the Eurobond market are hardly becoming crystal clear.

As deals are let fly, however, syndicate managers have been alert to changing patterns and are beginning to see the rough outlines of which way the business is developing.

Take the primary market for sovereign borrowers, for example. The undoubted success of Italy's $1.5bn issue, brought as a fixed-price reoffering by Morgan Stanley, followed the initial experiment by New Zealand.

Both deals have traded extremely well in spread terms, so much so that it is not too early to suggest a general market rule for such borrowers: fixed-price reofferings make sense and will become the normal underwriting and distribution method.

The rule makes several assumptions. It assumes the funds are wanted on an unswapped basis, and that the borrower understands and is happy with the market risk that the structure involves. It also assumes that future deals will be large, at least $500m, but probably $1bn or more.

This suits institutional investors because they gain a liquidity benefit on top of knowing they are paying the same price for their bonds as everyone else in the primary market.

The borrower should be happy because with large issues it needs to tap the market less frequently, implying lower administration and legal costs.

On the evidence so far, reoffered deals also trade very competitively, setting benchmarks for future funding. Researchers at UBS Phillips & Drew have looked at the volatility of issue spreads against Treasuries, and found that reoffered deals appear to be less volatile than traditional deals.

Although the research is still tentative, it looks as if reoffered deals may benefit from quicker placement into firm hands, with less paper held by trading accounts.

Finally, underwriters, at least the largest ones, have the rare joy of locking in a fixed fee. They know they can conduct this type of business for a profit, even if fees are inevitably squeezed by competition from their current levels. They can pre-sell the paper to investors and gauge progress via the better discipline of the formal syndicate.

Smaller underwriters, as well as some leading houses which have better origination than distribution capabilities, are less pleased with the prospect of the reoffered sovereign rule. Small houses tend to be ignored when the tighter reoffering syndicates are formed. Already the Eurodollar market is looking more dominated by institutional investors, with retail clients finding it hard to buy their small slices of reoffered deals.

What really intrigues is the application of the reoffered concept to the non-sovereign Eurobond market. Deals with swaps attached require precise timing to catch the arbitrage window open, a precision disallowed by the need to price a reoffered deal by consensus.

In addition, many corporate names have random funding requirements, and treasure the ability to tap the Euromarket's responsive liquidity.

However, the corporate sector of the market is in a mess, with wide spreads on secondary paper making it difficult for borrowers to meet funding targets. Even deals for the bluest of blue-chip names have struggled when they have been syndicated along inappropriate or unclear lines.

A case in point was last week's Ecu125m deal for IBM International Finance, syndicated as a hybrid reoffering. Paribas brought the deal with a traditional fee structure and was dismayed to see its attempts to control the distribution through a voluntary reoffering collapse as syndicate members broke ranks.

A $400m deal for IBM Credit Corporation syndicated traditionally by Goldman Sachs the previous week also had a rough time, performing poorly in spread terms as traders said it was insufficiently placed.

US corporates are natural users of the reoffered system, and willingly accept the obvious principle that underwriters should be paid for conducting their business.

However, shifting patterns of placement and investor demand make the Euromarket very different from the US domestic market. Some corporate borrowers are beginning to think that there is more value in their domestic market while Euro-spreads are so wide.

In its inimitable fashion, the Euromarket, for the time being, will probably fudge the issue of which corporation launches what and how. While it is possible to see tighter fees, it is not yet clear what else is lurking in the wings.

Andrew Freeman

EUROMARKET TURNOVER ($m)

Primary Market

	Straights	Conv	FRN	Other
US$	2,150.0	0.0	55.0	10,066.6
Prev	1,847.2	222.1	85.0	9,751
Other	832.1	0.0	355.6	1892.7
Prev	1,327.0	0.0	244.0	4,266.8

Secondary Market

US$	18,508.6	1,142.1	5,808.4	7,724.5
Prev	13,597.7	832.1	2,686.3	7,881.8
Other	15,356.7	979.7	5,153.7	34,548.8
Prev	15,544.9	976.6	4,335.8	34,126.0

	Cedel	Euroclear	Total
US$	11,325.4	34,129.8	45,455.2
Prev	11,780.8	25,122.4	36,903.2
Other	22,816.2	36,303.1	59,119.3
Prev	26,471.4	34,349.7	60,821.1

Week to October 19, 1989

Source: AIBD

UAL AND THE BANKS

A deal that dented Citicorp's reputation

IT WAS NOT one of Citicorp's happiest weeks. Blamed for the failure of a $7.2bn financing for UAL that has called into question the profitable leveraged buy-out business and that threatened for a time the stability of the world's stock markets, the New York bank's name was mud on Wall Street and elsewhere.

In the opinion of many bankers, the deal it failed to arrange was flawed. Citicorp, on its own or on its client's bidding, attempted to squeeze too much from international banks at a time when the omens for doing so were not at all good.

On top of that, the way the financing was being arranged worried bankers, offering the prospect of a free-for-all as banks tried to scale back their UAL exposure by selling loans to other banks.

In the first place the pricing of the loans was too tight at the publicised 2 percentage point margin over money market rates, particularly for a deal in which there was no cushion of subordinated "junk" debt to comfort bank lenders.

This was a misjudgment at a time when bank supervisors around the world, particularly in the US and Japan, were crawling over the books of banks with exposure to leveraged buy-outs.

While Japanese banks took most of the heat for the deal's failure – and it it is hard to believe they were acting individually in rejecting the terms – almost no large US banks agreed to join it. Less publicised, this was just as critical in leading to the collapse of the financing.

Banks were also worried that the price tag on UAL was too high, and that the deal had the makings of a public relations disaster: trade unions were opposed and the top people at UAL were taking out millions, while employees were being asked for pay cuts.

On top of all this, the success of the deal appeared to depend entirely on a rosy economic outlook in the US – far from a universal view these days – and robust traffic growth.

The way the financing was being sold to other banks also courted disaster. Citicorp had agreed to lend $2bn and Chase Manhattan, as co-arranger, $1bn, with the remaining $4.2bn to be raised mainly in $500m to $1bn chunks from other big banks.

But banks being asked to join the deal were told that they would have to syndicate their exposure on their own. There would be no central syndication, as is usual in most such deals: Chase and Citicorp would run a joint book, while the others would fend for themselves. As the Japanese banks sounded out smaller banks to see if there was a market for the loans, some said they found Citicorp had already attempted to do the same.

This lack of discipline contrasted with the way in which $13.6bn in senior bank loans were arranged to help finance the $25bn buy-out of RJR Nabisco. Ironically, Citicorp and Chase were part of the four-bank group that co-ordinated this, along with Bankers Trust and Manufacturers Hanover.

Syndication of the RJR Nabisco senior loans to the first tier of banks was co-ordinated centrally, as is common. However, because of the size of the deal, subsequent sales of loans to smaller banks were also tightly controlled, which is highly unusual. For some time any loans sold were deducted from all lending banks' exposure on a pro-rata basis, not just from the exposure of the selling bank. This successfully avoided the banks' aggressive distribution teams running over one another's tracks in efforts to sell loans.

Some bankers believe that the technique used by big US banks, of selling on large slabs of exposure to other banks, has worried the Japanese. Some banks are conscious that they sit with much of the exposure to LBO deals in the US, while those banks that have arranged the financings retain very little. In these circumstances, they argue, the big banks arranging the loans have little long-term stake in the deals.

There is no doubt that Citicorp's reputation has been dented; the more so because this is the type of deal it usually does best.

But the flop is of greater significance because it may mean that large leveraged buy-outs, certainly the most dramatic innovation in US corporate affairs in the 1980s, will not survive into the 1990s.

The big worry is of contagion: that because one deal has problems, banks pull back from all similar ones. Thus, when Mexico declared it could not service its foreign debts in 1982 the banks shrank from lending to any Latin American country.

Some banks are taking just this view of leveraged financings, and have quietly pulled back from lending. Most others say they will scrutinise deals more closely, but have not closed the door on the possibility.

If this is the case, the question then follows of how many deals can be done which can satisfy the requirements of both holders of debt – the banks and any junk bond investor who might still be around – and the equity participants in any transaction.

Because of the heightened sensitivity that holders of debt have to the risks of such deals, they will demand higher rewards.

If the debt holders get more the equity holders will get less, which is why the stock market – where valuations have built in an active LBO market – was behaving rationally when it tumbled following the UAL news.

Because of the higher price of debt some leveraged buy-outs "at the margin" will not now be arranged: the demands of equity and debt holders will be incompatible.

The central question being pondered in banks, securities firms and investment institutions last week concerned the width of that margin and whether it will allow any more such deals in the foreseeable future.

Stephen Fidler

NEW INTERNATIONAL BOND ISSUES

Borrowers	Amount m.	Maturity	Av. life years	Coupon %	Price	Book runner	Offer yield %
US DOLLARS							
Sumitomo Metal Mining#♦	300	1993	4	3⅜	100	Daiwa Europe	3.375
Toyobo Co.#	150	1993	4	(4)	100	Daiwa Europe	★
Hanshin Elec.Railway.#	150	1993	4	(4)	100	Nomura Int	★
Sammi Steel Co#♦	50	1994	5	1¼	100	Merrill Lynch	1.250
Keihin Elec.Rail.#	150	1993	4	(4)	100	Yamaichi Int.Europe	★
SAFIM♦	150	1994	5	9	101.60	Bankers Trust Int	8.593
Indian Oil Corp.♦†	200	1994	5	(e)	100	CSFB	-
Mitsubishi Corp.♦	100	1993	4	8⅝	101¼	Yamaichi Int.Europe	8.246
Nisshin Int.Fin.♦	10	1991	2	(m)	110	Nippon Credit Int	-
Nisshin Int.Fin.†♦(l)	21	1992	3	9⅝	101⅜	Toyo Trust Int	9.081
Tokuyama Soda.Co.#	200	1993	4	(4)	100	Nomura Int	★
AUSTRALIAN DOLLARS							
Redland Int.Funding♦	150	1996	7	15⅜	101¾	J.P Morgan Secs	14.955
Soc.Gen. Australia♦	50	1991	2	17	101.90	Westpac Banking Corp	15.819
DM-MARKS							
Fuji Kagakushi Kogyo#♦	75	1994	5	1½	100	Deutsche Bank	1.500
Toyobo Co#	150	1994	5	(1½)	100	Deutsche Bank	★
Mitsubishi Trust(k)§	300	1995	6	(2¾)	100	West LB	★
SWISS FRANCS							
Rohm Co.(b)♦§★★	300	1995	-	¼	100	UBS	0.250
Kimisawa Co.(c)♦§★★	40	1995	-	¼	100	SBC	0.250
Sakai Heavy Ind.★★#♦	70	1993	-	1⅝	100	Bank Julius Baer	1.625
Takamisawa Elec.(d)★★§♦	35	1995	-	½	100	Nomura Bank (Switz)	0.500
N.Nomura & Co.§★★	50	1994	-	½	100	Bank Julius Baer	0.500
Seiren Co.§	110	1994	-	(¼)	100	Bank Leu AG	★
Mitsubishi Trust(j)§♦	200	1994	-	⅜	100	UBS	0.375
SAS♦	100	1999	--	6⅛	100¾	UBS	6.023
STERLING							
Nat.West.Bank.♦♦	200	-	-	(h)	100	Merrill Lynch	-
ECUs							
IBM Int.Fin. Nv♦	125	1994	5	9⅛	101⅝	Paribas Cap.Mkts.	8.710
SWEDISH KRONA							
Cerinvest NV♦	300	1994	5	11⅛	101⅞	Den Danske Bank	10.622
Kredietbank Int.Fin.♦	250	1995	6	11¼	101.30	Kredietbank	10.943
Sandvik AB♦	250	1991	2	11⅝	101¼	Svenska Int.	10.896
GUILDERS							
Aegon NV♦	250	1999	10	7¾	101¼	Amro Bank	7.567
YEN							
Kansallis Osaki Pankki♦a)	2.7bn	1991	2	6⅛	101⅛	Nippon Credit	5.516
Kansallis Osaki Pankki♦a)	1.5bn	1995	6	6.7	101⅞	Nippon Credit	6.315
Swedish Nat.Hous.Fin(i)♦	11bn	1994	5	5.6	101	Nomura Secs	5.367
TRIPS Ltd Ser.F(f)★★♦	5.6bn	1991	2	5.6	101¼	Toyo Trust Int	4.928
TRIPS Ltd Ser.F(f)★★♦	5.6bn	1991	2	(g)	101¼	Toyo Trust Int	★
Jewel 6♦	10.1bn	1993	4	5.6	101⅝	Daiwa Europe	5.140
LIRE							
European Inv.Bk.♦	200bn	1995	6	12	101¾	BCI	11.579

★Not yet priced. ★★Private placement. #With equity warrants. §Convertible. †Floating rate notes. ♦Variable rate notes. ♦Final terms. a)Issue launched in two tranches. b)Yield to put 3.441%. c)Yield to put 3.479%. d)Yield to put 3.423%. e)6-month Libor + ⅛. f)Issue launched in two tranches. g)6-month Libor + 20bps. h)Libor + ⅛ initially. i)Samurai bond. j)Yield to put 3.5%. k)Indicated yield to put 4.8%. l)Payment date 21 Nov, short first coupon date.Nikkei-linked redemption. m)6-month Libor + 70 bps.Nikkei-linked redemption. Note:Yields are calculated on AIBD basis.

INTERNATIONAL CAPITAL MARKETS AND COMPANIES

Saab seeks car partner in Europe

By Robert Taylor in Stockholm

SWEDEN'S troubled Saab-Scania company is anxiously seeking agreement with a leading European car maker after the collapse last week of its talks with Ford of the US on joint co-operation.

Fiat, the Italian company, and Peugeot of France are believed to be holding separate discussions on a possible deal with Saab-Scania whose car division looks set to lose more than SKr1.8bn ($280m) this year, mainly because of its worsening sales in the vital US car market.

It has been calculated that the company is losing up to SKr14,000 on every model it sells.

Mr Georg Karnsund, the company's embattled chief executive, said last Friday that it might take two to three years for the car division to recover, but there are growing doubts that he has very much time left to remedy its troubles.

The rationalisation programme, designed to reduce Saab's soaring costs, has made some progress, with a cut of 2,000 in the 15,000 strong workforce, moves to improve productivity and the sale of some of its component plants.

Saab's suppliers in Sweden, however, have just rejected the company's demand that they should cut their prices by 10 per cent to assist the troubled car division.

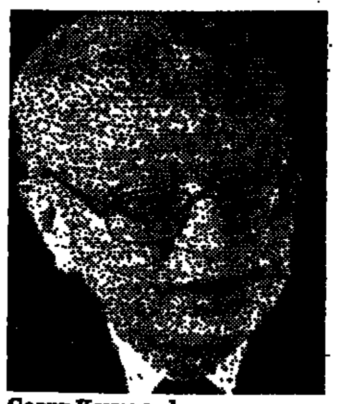
Last Friday Saab officially opened its new SKr1bn assembly plant in Malmo, which will have an annual capacity of 60,000 cars, manufactured by the latest techniques of team production.

The new plant suggests that Saab believes its current troubles are temporary.

But Saab-Scania has troubles in other areas and a question mark still hangs over its aircraft operations.

It is true the company has succeeded in building up orders and options for its civilian Saab 340B and Saab 2000. Only last Friday Mr Karnsund announced that Salenia, the Swedish airline company, had taken orders and options on 10 new aircraft with a value of SKr700m.

So far there have been 30 firm orders for the Saab 2000 as well as a further 34 options. But the company is still waiting for the Swedish Government to approve a SKr1.3bn conditional loan to meet half the development costs of the aircraft.



Georg Karnsund: car recovery may take three years

Moreover, the military aircraft side of operations faces an uncertain future, mainly because the Swedish Government has yet to give its further financial support to the future of the JAS 39 or Gripen project. This has been fraught with structural problems that culminated in a crash on the aeroplane's trial run last February.

A report on the JAS project was presented to ministers on October 2 and a government decision is expected soon. If the Government gives Saab-Scania the thumbs down then the company fears its entire aircraft operations will be in jeopardy.

It is expected to unveil a much greater loss in 1989 than the SKr138m deficit suffered last year.

For the moment, at least, the company can continue to rely on substantial profits from the sale of its trucks and buses, which enjoyed a 17 per cent increase in sales in the first eight months of the year.

Analysts believe the Scania division could achieve a profit of about SKr3.7bn, making it one of the most profitable heavy goods manufacturers in the world. But many observers warn of the dangers of relying so heavily on truck and bus sales.

In the meantime, to add to the gathering storm clouds, the Swedish investment company Barkmans, owned by financier Mr Sven-Olof Johansson, increased its equity stake in Saab-Scania to 14 per cent from 12 per cent and voting rights to 16 per cent from 14 per cent, adding to the pressure on the powerful Wallenberg family, the company's biggest shareholder.

Roche lifts sales 22% and raises dividend

By William Dullforce in Geneva

HOFFMANN-LA ROCHE, the Swiss chemicals and pharmaceuticals group, reported a 22 per cent climb in sales to SFr7.32bn ($4.5bn) during the first nine months and reiterated its previous forecast of "a considerable rise" in earnings this year.

The group increased the shareholders' dividend by 21 per cent, from SFr660 to SFr800 a share, on the 1988 account, after it had declared a 33 per cent improvement for last year in consolidated net earnings to SFr641.5m. This profit performance was achieved on a 13 per cent sales gain.

In April Hoffmann-La Roche undertook a far-reaching capital restructuring, designed to open its stock to institutional investors and to make its shares more tradeable.

The 22 per cent increase in turnover in the first nine months of this year represented a 13 per cent gain in local currencies.

Exchange rate influences were less marked than in the corresponding period of 1988.

BNP buys stake in Romagnolo

By John Wyles in Rome

A FURTHER strengthening of Franco-Italian banking ties has been marked by the acquisition of a 2 per cent stake in Credito Romagnolo, Italy's second-largest private bank, by Banque Nationale de Paris.

Mr Francesco Bignardi, the Bologna bank's president, said late last Friday that BNP had purchased its shares on the open market with the agreement of the Romagnolo board.

The two banks have agreed a medium-term collaboration plan which will allow Romagnolo to upgrade its services to clients and will guarantee "a direct support on all of the principal European markets through the French bank's network."

Romagnolo is controlled by a group headed by Mr Carlo De Benedetti of Italy.

Texas Instruments falls 31%

By Martin Dickson in New York

TEXAS Instruments, the US electronics manufacturer, has announced a 31 per cent drop in third-quarter net income, due to the slowdown in its key semiconductor and defence electronics markets.

Net income for the quarter totalled $65m, against $94m, on net sales of $1.54bn, slightly down from $1.58bn. Earnings per share worked through at 67 cents, down from $1.03 in the same period of last year.

Mr Jerry Junkins, the chairman, said the growth rate in the world semiconductor market was continuing to slow, particularly for memory products, because of the weaknesses in the electronic equipment sectors. Its latest survey showed customers maintaining low levels of semiconductor inventories.

The company's operating profit was $40m, or 3 per cent of net sales billed, down from $107m, or 7 per cent in the same period of last year and $33m below the second quarter. This was primarily because of lower prices and higher depreciation in semiconductors.

While analysts had expected a sharp decline in earnings, the operating profit figures were worse than some had been forecasting. Mr Junkins said the company expected "near-term sluggishness in the electronics market and we will take ongoing cost reduction actions as necessary to keep operations aligned with demand."

He also announced Texas would be taking an unspecified fourth-quarter charge for a reorganisation of its operations in advanced information systems. The aim was to create a group offering sophisticated software development tools for business problems, and the shake-up would also help produce large reductions in operating costs.

Net income for the first nine months totalled $256m, down from $271m, while earnings per share were $2.70, compared with $3.01. Net sales were $4.66bn, up slightly from $4.60bn, with increases in the components and digital products segments more than offsetting a decline in defence electronics.

Mr James Barlage, an analyst at Smith Barney, felt that in the longer term the company's prospects for significant growth were "quite dismal." The slowdown in military spending was hitting what had been one of the company's greatest areas of growth over the past decade.

Mr Stuart Johnson, at Wertheim Schroder, said he was looking for earnings per share for the year of $3.45, before the fourth-quarter charge, and the outlook thereafter was "not particularly exciting."

Ericsson signs US contract

By Robert Taylor

ERICSSON of Sweden has taken an important step towards its goal of penetrating the US telecommunications market with the signing of a five-year contract with Southwestern Bell for the purchase of Axe digital switches. Neither side would reveal the value of the deal.

Ericsson's switches are to be supplied for lines Southwestern Bell is installing in Arkansas, Kansas, Missouri, Oklahoma and Texas.

The Swedish group made clear the contract contained an important qualification. Its full benefit is contingent on Southwestern winning approval from the states concerned for new regulations covering sensitive issues such as price flexibility.

US MONEY AND CREDIT

Weak distress signals amid the fury

IN THE turbid ebb and flow of credit across frontiers and ages, the attempt this autumn by a group of men to buy United Airlines with $7.2bn in borrowed money has the look of a high-water mark.

Ever since the managers and pilots of United Airlines said they would try to buy the airline six weeks ago, speculative credit has been ever-harder to find. First the junk bond market dried up, then the market for syndicated bank loans and finally, it seems, the patience of British Airways.

Over the weekend the bidders plugged away at it. Airline Acquisition, which consists of senior managers at the airline and the pilots' union, said it was talking to the airline's flight attendants about pitching their wages into the buy-out. They hope to have a proposal to show to the board of UAL, United's parent company, today.

On Wall Street, where UAL stock is trading down 40 per cent from its high, the take-over speculators are bloodied but hanging in. Rather than cut their losses, the arbitrageurs are saying: if United was worth buying at $7bn, it's a steal at $4.5bn. Trust us.

More prudent investors may stop and ponder. They may consider that when airline stewards and stewardesses are asked to finance leveraged buy-outs, speculative credit has reached its outer limit.

At this high frontier, assets that have increasingly depended for their value on credit – such as stocks, some works of art and all baseball cards – may wobble or even stall. Stocks have no support but the cash flows and equity of the companies they embody.

The fact that corporate income tax payments, as measured by Salomon Brothers, were $1bn less in the three months to September than in the June quarter says something about the strength of cash flows. Everybody knows what has happened to US stock market equity.

It was thoughts of this sort that caused the stock market to collapse 10 days ago. The Dow Jones Industrial Average fell 190.58 points in little more than an hour. Hardened bulls were openly saying that the days of easy money for difficult deals were passed.

In far away Australia, Mr Christopher Skase, who had vowed he would buy the MGM/UA studio for $1.5bn, failed to raise even $5m to keep one of his businesses out of bankruptcy.

People seemed chastened.

But they were not all that chastened. In the course of last week the Dow recovered 119.88 points. An earthquake in San Francisco unleashed a raging bull market in insurance and re-insurance stocks.

On Friday morning a railroad called Chicago & North Western raised $475m in 12-year bonds at an interest rate of 14.75 per cent, resettable after one year at a rate not exceeding 15.25 per cent. In the course of the week Merck and Coca-Cola, makers of pharmaceuticals and soft drinks, touched all-time highs.

Roaring arbs, spendthrift stewardesses, earthquake rallies, junk bonds, glamour stocks: surely the 1980s are going out with a bang.

But amid the noise and fury, the economy – where people work and buy and sell things other than financial instruments – is sending out faint signals of distress. This combination of rampant speculation and a weakening economy is just about as bad as it could be.

As Mr Robert Brusca, chief economist at Nikko Securities, put it last week: "In 1987 the stock market crashed but it landed on an economy that was taking off. What happened this time round was much less severe but it comes at a time when the economy is weakening. It is a very inhospitable environment."

The latest disinflationary signal came from the Labour Department on Thursday. The department said that consumer prices rose just 0.2 per cent in September with prices in some sectors of the economy, such as transportation and energy, actually falling.

Housing costs rose very marginally. According to Mr Allen Sinai, an economist at the Boston-based Economic Advisers, "disinflation over the summer was very pronounced" with consumer price rises falling to an annual rate of 1.6 per cent in the four months since June. Excluding food and energy prices, which tend to move with the seasons and are volatile, consumer price inflation ran at 3.1 per cent during the summer.

The stock market rallied at the consumer price report, on the grounds that it carried the prospect of lower interest rates. Long-term bonds also performed well. At the short end, rates have been backing up all week as the market believes the Fed no longer has to ease simply to return confidence to the stock market.

But even here the bulls are in command. The general view is that, with inflation subdued, the Fed can afford to ease further at any signs of weakness in exports or factory output.

For the stock market the bullish case is sounding ever-more implausible. It requires an almost superhuman skill from Mr Alan Greenspan, the Fed's chairman, in reading the direction of the economy and steering it to safety.

It requires a co-ordination of policies between nations that sometimes would prefer to bicker. Above all, it requires a controlled blow-out every now and then to prevent pressure building up throughout the system. And all this in the eighth year of an economic expansion.

For the Treasury market, the bullish case is scarcely stronger. It can be argued that the era of high yield, the roaring 1980s of junk bonds and leveraged buy-outs is drawing to a close.

As Mr Jim Grant, the author of this view, puts it, investors will one day grab at any yield, even no yield at all, if it means their money is safe. In those circumstances, what price will investors pay for the leveraged faith and credit of the US Treasury?

James Buchan

US MONEY MARKET RATES (%)

	Last Friday	1 week ago	4 wks ago	12-month High	12-month Low
Fed Funds (weekly average)	8.68	8.62	9.06	9.92	8.00
Three-month Treasury bills	7.80	7.16	7.76	9.03	7.15
Six-month Treasury bills	7.94	7.41	7.93	9.03	7.37
Three-month prime CDs	8.55	8.30	8.75	10.35	8.18
30-day Commercial Paper	8.50	8.62	8.80	9.95	8.05
90-day Commercial Paper	8.35	8.52	8.60	10.05	8.14

US BOND PRICES AND YIELDS (%)

	Last Fri.	Change on wk	Yield	1 week ago	4 wk. ago
Seven-year Treasury	102⅛	+¾	7.96	7.75	8.06
20-year Treasury	111⅜	-1⅛	8.06	7.94	8.17
30-year Treasury	101⅝	-1⅜	7.98	7.82	8.07

Source: Salomon Bros (estimates).

Money supply: In the week ended October 9, seasonally adjusted M1 fell $3.3bn to $786bn

NRI TOKYO BOND INDEX

December 1983 = 100	PERFORMANCE INDEX 19/10/89	Average yield (%)	Last week	12 wks ago	26 wks ago
Overall	149.05	5.51	148.70	149.37	148.10
Government Bonds	149.13	5.29	148.66	149.71	148.43
Municipal Bonds	150.29	5.78	150.23	151.07	149.91
Govt.-guaranteed Bonds	151.66	5.84	151.59	152.04	150.88
Bank Debentures	143.04	5.56	142.53	143.10	141.87
Corporate Bonds	151.95	5.70	152.09	151.29	149.93
Yen-denom. Foreign Bonds	157.31	6.18	157.12	155.46	153.95
Government 10-year†	5.24		5.27	5.01	4.98

† Estimated par yield

Source: Nomura Research Institute

Swiss launch two funds

SWISS BANKS have launched two Luxembourg-based international investment funds, both of which are to open subscriptions today, writes John Wicks in Zurich.

Crédit Suisse's new fund will invest in leading European shares, offering certificates at an initial unit price of DM250.

Union Bank of Switzerland's UBS Bond Invest Ecu, to be managed by Intrag International Bond Invest of Luxembourg, will have UBS (Luxembourg) as custodian bank. Certificates will have an initial unit price of Ecu100.

UK GILTS

Lawson has his cake, and eats it

THE SPEECH by Mr Nigel Lawson, the Chancellor, at the Mansion House last Thursday added little to the market's knowledge of the economy; it already knew that getting inflation down and the current account heading towards balance would take a long time.

His speech underlined the essentially pragmatic nature of the man in charge of Britain's economic policy. M0 and the exchange rate remain the key indicators of monetary conditions – the former because it gives a coincident reading of money gross domestic product and the latter because of its importance in the control of inflation. But on closer inspection his speech did little to reconcile contradictions in the current operation of monetary policy.

In what must pass as one of the better examples of having one's cake and eating it, Mr Lawson told the City's great and good that he would not return to overfunding but then told them how he would sanction a little bit of it.

It is hard to square the Government's funding policy with its attitude to broad money growth. Mr Lawson went to great lengths to demolish the arguments in favour of targeting broad money; it was unreliable, gave misleading signals and, if anything, the quality of broad money as an indicator had deteriorated with time.

Yet the Government's funding policy – the choices it makes in dealing with the consequences of fiscal surplus – is framed in terms of broad money neutrality. If broad money is unreliable and misleading, why be so concerned about the effects of over/underfunding on M4?

The answer here is that Mr Lawson and the Bank of England are not prepared to consider altering their money market management techniques. This in turn has forced them to exclude Treasury bills from the funding equation.

The rebirth of the T-bill market was a consequence of the full-fund policy in the first place. Initially the Bank's stock of eligible bills was eroded as it sought to mop up the cash in the market generated by its gilt buy-back policy. When it ran out of bills it stuffed T-bills down the market's throat.

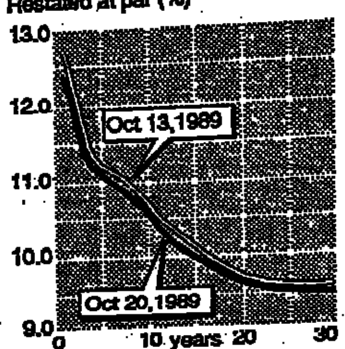
Unfortunately T-bills were debts which the Government does not need, so they needed to be unfunded. The scale of the potential unfund was estimated by the authorities at between £1bn to £2bn, not huge in itself but certainly not inconsequential in terms of the Bank's theoretical gilt buy-back in the second half of this financial year.

The Chancellor himself recognised this when he said on Thursday: "It has become increasingly anomalous to chase our tails in this way."

So T-bills are now outside the funding rule and a modest return to overfunding has occurred. But that is not the only area where Mr Lawson has modified the rule with a bias towards overfunding in the current circumstances.

UK gilts yields

Restated at par (%)



Source: Warburg Securities

He has also decided to be selective in the way the Bank sterilises – that is, neutralises – the effects on the money supply of foreign exchange intervention.

The Treasury stressed the flexibility of the new policy. That seems to mean sterilisation will occur only when it is appropriate to do so.

In the current circumstances this could mean that intervention will not be sterilised. If, however, the exchange rate were to appreciate and the Bank intervened to hold it down, then the intervention might indeed be sterilised.

So where does the Mansion House speech leave the market in terms of its understanding of monetary policy?

M0 is important – it gives reliable estimates of money GDP growth, although it is a poor predictor of inflationary pressures to come – as is exchange rate stability. Where these two indicators fail, judgment prevails; a clear victory for Mr Lawson and his senior advisers over those in the Treasury who think the economy has been subjected to too much judgment recently.

Perhaps it is concern over the exchange rate that has prompted changes to the funding rule. If the Government expects another run on the pound it can intervene to its heart's content, thereby tightening the money market and keeping short-term rates high. If it wants to keep the market tight for other reasons it can issue T-bills without the problem of unfunding them.

The implication for gilts is clear. When foreign currency intervention and the withdrawal of T-bills from the funding definition are taken into account there is probably precious little buying-in for the Bank to do.

Being more definite is difficult as the operation of policy has become more discretionary than it was before Mansion House. In all likelihood the market might regain some of it old shock absorber qualities. If the Bank stops supporting the market then the potential for a flattening in the yield curve is a distinct possibility.

Simon Holberton

FT/AIBD INTERNATIONAL BOND SERVICE

US DOLLAR STRAIGHTS	Issued	Bid price	Chg on week	Yield
AETNA LIFE & CAS 7¾ 16	200	97	0	8.02
AHFC O/S.FIN. 11¼ 94	100	100½	0	11.57
ALBERTA PROVINCE 7⅞ 91	750	97¼	+¼	8.56
ALBERTA PROVINCE 9¼ 95	600	103¾	+⅛	8.53
ALCOA AUSTRALIA 11 92	80	101¼	0	10.38
AMERICAN GENERAL 9¾ 95	100	103¾	+⅛	8.95
[illegible]				
ONTARIO HYDRO 11¼ 94	200	102⅛	0	9.18
ONTARIO HYDRO 11¼ 90	100	105¼	+⅛	9.00
ONTARIO HYDRO 13½ 91	150	114¼	+⅛	8.94
ONTARIO HYDRO 15 92	200	98⅞	+⅛	8.60
OSTER KONTROLLBANK 8¼ 93	200	101⅞	+¼	8.61
OSTER KONTROLLBANK 9¼ 92	75	112	0	10.05
PACIFIC GAS & ELEC 12 00	200	95⅛	+⅛	8.99
PEPSICO INC 7⅞ 93	100	99	+¼	9.10
PEPSICO CAPITAL 8⅞ 91	200	92⅞	+⅛	8.69
PETRO-CANADA 7¼ 96	200	101¼	+½	9.55
PHILIP MORRIS 9⅞ 98	75	100⅝	0	9.21
POSTIPANKKI 11¼ 90	150	102½	0	9.39
PROCTER & GAMBLE 10 95	365	46⅛	+¼	8.75
PRU.RLTY.SECS. 0 99	97	98⅞	+½	8.85
QANTAS AIRWAYS 8¼ 96	200	104¼	+⅛	8.86
QANTAS AIRWAYS 9⅞ 96	[illegible]	[illegible]	[illegible]	[illegible]

	Issued	Bid price	Chg on week	Yield
QUEBEC HYDRO 9¾ 98	150	106⅜	+½	8.66
QUEBEC PROV 9 98	200	102	+⅛	8.64
QUEBEC PROV 13 90	150	103⅝	+⅛	9.16
RALSTON PURINA 11⅛ 95	150	108⅛	+⅛	9.74
REYNOLDS R.J. 10¼ 93	100	97¼	-¼	11.16
RICHARDSON-VICKS 11½ 93	125	102¼	0	10.70
ROCKWELL INT 9¾ 90	200	100¼	0	9.43
S.A.S. 10¼ 95	150	104¼	+¼	9.19
[illegible]				

CONVERTIBLE BONDS (cont.)	Issued	Price	Chg on week	Prem
[illegible]				
FUJITSU 3 99	180	223	+9¾	1.10
GOODYEAR TIRE 6¾ 03	150	88½	-1⅛	43.48
GRACE (WR) 6½ 02	150	94	-5	24.23
GRAND MET 6½ 02	100	91⅛	-3⅛	11.59
INTL PAPER 5¾ 02	200	91⅛	-4⅛	21.81
LTCB 1⅞ 02	200	103	0	-3.25
MCA 5½ 02	300	101¼	-4¼	10.58
MITSUBISHI BK 1¾ 02	300	117	+3⅞	-1.14
NEWMONT MINING 7 01	100	125⅜	-6⅞	-0.94
NIPPON ELECTRIC 2⅞ 00	150	245½	+5½	1.67
NISHI NIPPON 2⅞ 03	70	127¼	+2¼	-0.02
OMNICOM 6½ 04	100	102⅛	-2⅛	16.12
PIONEER CONCRETE 9½ 98 A$	179	82⅞	-6⅛	8.91
ROCKEFELLER CENTER 0 00	952	34½	-⅛	-61.83
SANWA BANK 1¼ 02	300	99⅝	+3¼	-1.08

	Issued	Bid price	Chg on week	Yield
THORN EMI 5¾ 04 £	103	105⅛	-1⅛	7.54
YEN STRAIGHTS				
ALLIED-SIGNAL 6¼ 93	20.0BN	101½	0	6.27
AUSTRIA 4¾ 94	30.0BN	96⅝	+¼	5.67
AVON CAPITAL 6¼ 92	26.0BN	99⅞	-⅛	6.96
BARCLAYS O/S INV 6 96	40.0BN	[illegible]	[illegible]	5.68
[illegible]				

WARRANTS (cont.)	Expiry	Price	Chg on week	Prem
[illegible]				
CREDIT FONCIER 10¼ 98	07/03/93	35	0	9.33
DENMARK 12¼ 92	31/01/90	170	0	9.80
GEN ELEC CRED 9½ 92 B	17/12/92	70	+15	9.14
GMAC 8¼ 95 B	11/02/91	20	0	8.73
HEINZ H.J. 7½ 96	01/10/90	18½	+1½	8.29
INV IN IND B 9⅛ 94	07/04/90	2¼	0	7.45
LASMO 9½ 96	12/07/92	170	0	8.62
NORDIC INV BANK 7⅞ 96	30/10/91	21	0	9.05
NORDIC INV BANK 10 96	27/03/96	6¼	+½	7.75
S.A.S. 9¼ 03	03/06/91	50	-2	8.92
		47	0	8.64

STRAIGHT BONDS: Yield to redemption of the mid-price. Amount issued is expressed in millions of currency units except for Yen bonds, where it is in billions.
FLOATING RATE NOTES: US dollars unless indicated. Margin above six-month offered rate for US dollars. C.cpn = current coupon.
CONVERTIBLE BONDS: US Dollars unless indicated. Prem = percentage premium of the current effective price of buying shares via the bond over the most recent share price.
WARRANTS: Equity warrant prem = exercise premium over current share price. Bond warrant ex yld = exercise yield at current warrant price. Closing prices on OCT 22

UK COMPANY NEWS

New cash injection plan put together by Systems Reliability

Optim drops bid and restructures

By Andrew Hill

SYSTEMS Reliability Holdings, the telephone systems designer and computer dealer, is leading a restructuring plan to revive Optim Group, the USM-quoted supplier of computer systems.

Optim, which has been suffering from cash flow problems and high borrowings, announced a cash subscription and a 4-for-15 rights issue, which will together raise £4.5m. Optim is also abandoning the £2.37m all-share acquisition of Zelix, a computer services group.

That deal, announced at the beginning of last month, was intended to provide a cash injection for Optim, but the board later realised that it would supply insufficient working capital.

The new rescue plan was put together by SRH's chairman and chief executive, Mr Robert Evans. He joined the group from Hillsdown Holdings last year and will become executive chairman of Optim.

The rights will be made at 10p a share, against Friday's closing price of 24p, up 6p. A consortium and syndicate led by SRH are subscribing for new shares at the same price.

In addition, Brown Shipley, which provided long-term loans for Optim when it floated on the USM in July 1988, has agreed to convert £2.6m of debt into equity at 16.25p a share.

Mr Evans said he did not see any value in mounting a full takeover for Optim at this stage.

"By taking a 5 per cent stake and management control we can see what we have got and sort the company out before going too far down that road," he said.

After the recapitalisation, the main consortium members will hold 13.3 per cent of Optim's enlarged capital. SRH will hold 5 per cent, and the balance will be held by Mr Michael Shafran, Mr Christopher Rigler and Tranwood Capital, the investment subsidiary of the financial services group, Tranwood.

Mr Shafran is chairman of Global Group, the quoted importer and exporter of meat products, and has known Mr Evans since he was at Hillsdown. He will join Optim's board as a non-executive director. Mr Rigler, an SRH director, will become an executive director of the computer systems group.

Other holders of Optim's enlarged equity will include Brown Shipley, with 20 per cent, and the existing directors, with 4 per cent. The subscription shares not taken up by the main consortium members are being bought by institutional and private clients of Henderson Crosthwaite, where Mr Shafran is a director, and of Tranwood. The Henderson clients will hold 16 per cent of Optim's enlarged equity, and Tranwood customers will hold a further 25 per cent.

Among the new Optim institutional investors are two existing SRH shareholders – Prudential and Provident Mutual – which will own more than 5 per cent each.

SHARE STAKES

THE following changes in share stakes have been announced recently:

Aitken Hume: PJ Bachmann, director, bought 367,500 ordinary, increasing holding to 3.06m (6.23 per cent).

Associated Farmers: Brit-N and NDS Brown increased interest to 250,000 ordinary (12.3 per cent).

Copymore: HS Goldbold bought total of 152,850 shares and owns 4.37m (40.3 per cent).

Dolphin Packaging: HB Evans, managing director, purchased 2,000shares at 105p and 19,000 at 103p, bringing beneficial holding to 6.4m (33.11 per cent). GI Robinson, director, made similar purchases and has a beneficial interest in 4.26m (22 per cent).

Edmond Holdings: Willesley Clay lifted beneficial holding to 7.12m shares (14.09 per cent).

Frogmore Estates: Markheath Securities owns 8.8m shares (22.1 per cent) following purchases of 470,000.

Hyman: Greiner Holding, privately-owned Austrian company, has acquired 5.06 per cent of the capital.

Johnston Group: RF Gray sold 12,128 ordinary and left with 517,460 (4.94 per cent).

LGW: CB McGuire acquired 8,500 ordinary at 80p. Holding now 3.16m (71.07 per cent).

NMC Group: CJ Barker bought 49,500 shares at prices between 105p and 116.5p. Total holding 3.39m (8.7 per cent).

Oceonics Group: On behalf of clients EBC Nominees (Jersey) has disposed of 1.5m shares; clients now own 4.76m (4.3 per cent).

Pentos: Danae Investment acquired 7,845 preference shares; holding now 56,525 (56.52 per cent).

Sunleigh: Babcock acquired 395,000 ordinary and holds 4.6m (20.02 per cent).

Suter has bought in 500,000 ordinary at 178p each. Total purchases 11.56m shares.

Whitegate Leisure: Hornby Trading purchased 1.32m shares bringing holding to 10.86m (7.83 per cent).

Automotive Products moves ahead

Automotive Products reported continuing strong demand despite problems caused by interest rates in certain markets. Pre-tax profits for the six months to June 30 rose 5 per cent to £12.8m, against £12.2m.

Turnover for this subsidiary of BBA Group was £12.3m higher at £173.7m.

FT Share Service

The following securities were added to the Share Information Service in Saturday's edition:

Greyfriars Investment Company (Section: Investment Trusts).

Presidio Oil Company 'A' shares (Oil & Gas).

Ransomes 8.25p (Net) Cum. Conv. Pref. shares (Engineering).

Tokai Bank (Banks).

New shape Jantar starts to progress

JANTAR showed progress in the first half of 1989, making a pre-tax profit of £54,000. That compared with a loss of £24,000 in the corresponding period and with a profit of £30,000 for the whole of 1988.

The company, a former shell mining and minerals trading undertaking, was acquired by Mr Stephen Parris and European Trust in April.

It later acquired Cargo Control Equipment, a maker of load restraint equipment and that represented the first stage in the development of Jantar as an industrial holding company, initially concentrating on the light engineering sector.

Mr Parris, who is chairman, said the second half of the year would see the benefit of contributions from Cargo Control, Jaggard's Tiltman and TV-Safe and Transequip.

The level of trading in those companies was up to expectations. Jantar continued to look for further opportunities to develop within the transport services sector.

He said it was intended to return to dividends as soon as appropriate. The last payment was for 1985.

English and Intl net assets rise

At October 5 1989, net asset value of English and International Trust had risen to 172.4p, from the 170.7p of six months earlier.

On gross income ahead nearly £1m to £2.81m, earnings moved up from 1.68p to 1.85p. The interim dividend is 0.8p (0.75p).

FINANCIAL TIMES STOCK INDICES

	Oct 20	Oct 19	Oct 18	Oct 17	Oct 16	Oct 13	1989 High	1989 Low	Since Compilation High	Since Compilation Low
Government Secs.	84.59	84.70	84.66	84.78	85.27	83.79	89.29	83.75	127.4	49.18
Fixed Interest	93.74	93.20	93.40	93.37	93.77	94.08	99.59	93.20	105.4	50.53
Ordinary	1761.0	1772.1	1758.5	1730.7	1760.3	1815.0	2008.6	1447.8	2008.6	49.4
Gold Mines	197.3	193.2	190.6	192.5	184.9	204.7	215.2	154.7	734.7	43.5
FT-Act All Share	1097.64	1100.15	1089.30	1071.59	1078.89	1124.57	1225.80	921.22	1238.57	61.92
FT-SE 100	2179.1	2189.3	2170.1	2135.5	2163.4	2233.9	2426.0	1782.8	2443.4	986.9

UK COMPANY NEWS

Preparing for the defence of its own territory

David White takes a look at the ups and downs of USH, the one-time high flyer facing a hostile bid

A SPECIAL kind of limbo has opened up for medium-sized defence companies. While bigger groups re-position themselves to take a still bigger share of a stagnant business, others face hard choices.

Do they get out of areas where the cost of keeping up is too high? Do they try to make their niches more secure? Do they go for international links to gain entry rights to other Western markets?

United Scientific Holdings was one such British company in the throes of trying to resolve its dilemma when the shadow of the predator fell across it last month in the form of a hostile bid from Meggitt, the instruments and engineering components group.

A star of the defence business in the 1970s, USH relies on military clients for 90 per cent of its sales. It employs 4,000, with a big US side, a French arm, and, unusually for a UK defence group, a manufacturing base in Singapore which is one of the biggest producers of military optics in south-east Asia. When Meggitt made its bid, USH was in the midst of a switch in emphasis to concentrate on growth in Europe and Asia.

The specific problem which made USH especially vulnerable lies at the heart of its main activity. The group has a solid armoured vehicle business, Alvis, and a smaller specialised simulation division, but electro-optical equipment accounts for 60 per cent of sales. At the centre of this business is Avimo in Taunton, which has big contracts it can neither drop nor make money on.

The once high-flying group has had its ups and downs since the beginning of the 1980s, from its failure to sell its Falklands-proven Scorpion tracked reconnaissance vehicle in the US to having to fend off unwelcome attentions from Thorn EMI.

In the first half of its current financial year, USH plunged into a pre-tax loss of £5.5m, after a profit of similar proportions a year earlier. The figures included a £5m provision in respect of Avimo. Group sales were also 23 per cent down in the first half of its current financial year.

Mr Nicholas Prest, a former government arms export official who was promoted to deputy chief executive in May after the latest in a series of boardroom upheavals, says Avimo is "basically the main problem." The rest of the group has performed "reasonably" in the context of slack defence budgets.

Avimo lost £3m last year. The provision made earlier this year was for future losses then anticipated to arise on two major contracts.

By a twist of fate, USH has been impaled on the competitive arms-buying policies erected by Sir Peter Levene, who was the group's managing director and then chairman before he left in 1985 to head the Ministry of Defence's Procurement Executive. From the 1960s he had helped build USH from a war-surplus retailer to manufacturer, expanding into the US and into the Alvis business, bought from British Leyland.

Avimo had been very successful in exports to countries such as Nigeria, Egypt, Algeria and Iraq, and in the UK had a reputation as a cost-effective manufacturer, involved in mass-production items such as binoculars and rifle sights, but was not deeply involved in UK Ministry of Defence research and development work.

By the mid-1980s export work had dried up. Instead of cutting capacity, Avimo decided to go for build-to-print production projects in the UK, which were being opened up by the new MoD competition policy.

It won two UK contracts to build equipment developed by the Pilkington group. Both were at "firm fixed prices," which in MoD-speak means no adjustment for inflation.

One was for £18m-worth of Raven sights for GKN's Warrior combat vehicle, a contract lasting eight years with deliveries up to 1994. Accepting a no-inflation clause was, Mr Prest says, "a curious commercial decision." In addition, although Avimo had produced this kind of equipment before, it miscalculated the production hours needed.

The other, worth £17m, was for the Thermal Observation and Gunnery Sight (TOGS) system for the Army's tanks. This broke new ground for Avimo – much more complex to build, subject to draconian testing and validation procedures, with the added difficulty, according to the company, of gaps in the manufacturing information supplied to it.

"It is clear from what we now know of the technical complexity of TOGS that the delivery schedule for the contract was far too ambitious," Mr Prest says. The programme should by now have been roughly completed, but only a small proportion has been delivered.

Avimo also went astray on an export contract it is more discreet about, but which is known to have involved sights for Egypt. It again underestimated the work required.

Just before Meggitt announced its offer, USH had reached a conditional agreement to sell its Dallas-based US subsidiary Optic-Electronic Corporation (OEC), which it bought 12 years ago and which suffered losses in 1985-86. USH insists that the $65m deal was not a "fire sale" and was not cobbled together to help it survive a bid.

Applying the theory of "get bigger or get out," USH started going for the first option. Trying to reinforce OEC'S business in image intensifiers for night-vision systems, it tried last year to take over the number two US company, Varo, also Dallas-based. It was outbid to the US company IMO, to which it is now proposing to sell OEC. It says consolidation is needed in the night-vision industry and that there are particular benefits to be derived from putting OEC and Varo together.

Mr Prest also argues that the US "proxy board" system for foreign-owned defence companies – which has come under the spotlight with Ferranti's belated discovery of a "black hole" at the US company it took over – is, for an operation that provides 30 per cent of group sales, undesirable in the long term.

USH's intention is to expand its European and Singapore electro-optics businesses instead. It is understood to have been in discussion with a European partner on a joint venture.

Mr Prest says the group could continue to tap the US market, but at "niche level" and provided it develops the right products. He recognises that the building of a proprietary product base at Avimo has been neglected in the past.

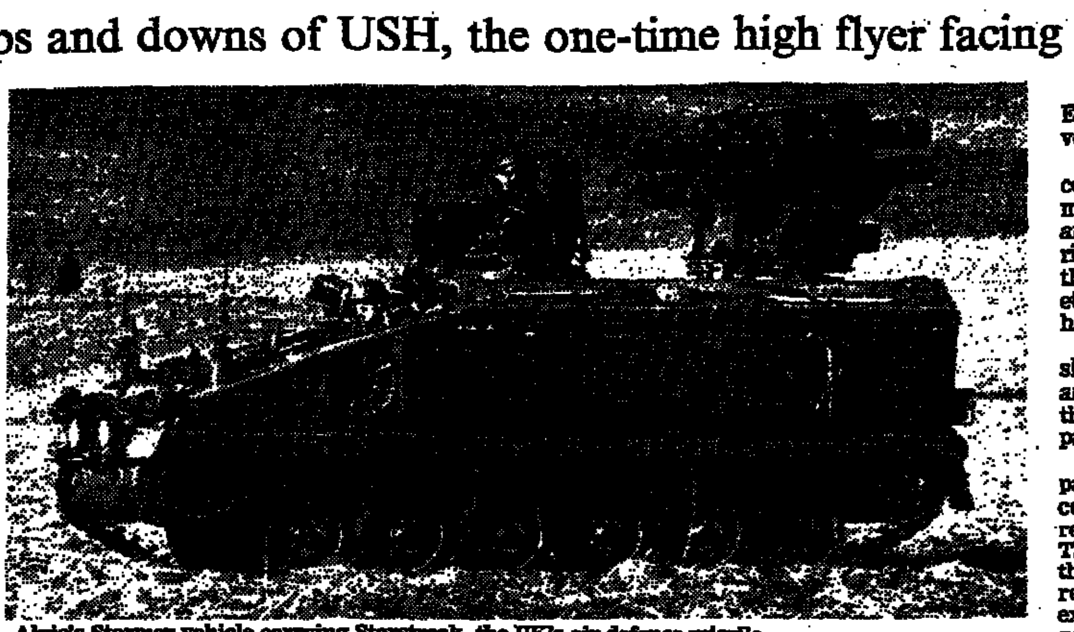
"It ploughed too much into showing spectacular growth and too little into developing the technical base of the company."

The associated French company Sopelem (USH has 49 per cent) has concentrated on renewing its product range. The group has found some of the "quality" work it needed to replace lost Third World exports, including a laser rangefinder for France's new Leclerc tank and periscopes (made by Helio, the first manufacturing company USH bought) for US tanks.

It believes the combination of "platforms" (such as vehicles) and sensors is the way defence companies should be moving. Alvis, while continuing to produce the well-tried Scorpion (it sold Venezuela $85m worth last year), is basing new development on the tracked Stormer vehicle, already chosen to carry the UK's Starstreak air-defence weapon.

But at the same time it has begun to spread its wings, carefully, outside the military sector, with Avimo Singapore entering the Japanese civilian optics market and Alvis, which once upon a time made piston aero-engines, going back into aerospace as a sub-contractor.

Mr Prest says he would like to see USH doing 30 per cent of its business in non-defence sectors in three years' time, and 50 per cent in five years – if, that is, it succeeds in the defence of its own territory.



Alvis's Stormer vehicle carrying Starstreak, the UK's air defence missile

Jaguar and GM may launch new car

By Kevin Done, Motor Industry Correspondent

JAGUAR and General Motors are considering the joint development and production of a range of executive cars pitched below the present Jaguar XJ6 luxury saloon range.

The new car is a key element in the current negotiations between the two companies and would lead to a significant extension of the current Jaguar range.

As part of the negotiations GM, the world's largest car maker, has already announced that it is considering taking a minority equity stake in Jaguar.

Sir John Egan, chairman and chief executive of Jaguar, said last week that one of the major advantages for GM in the proposed deal would be the development of "joint manufacturing ventures".

It is understood that the two companies have not yet decided where such a new executive car would be built nor on the volumes and marketing strategy, but it would draw heavily on GM technology as well as on Jaguar expertise in suspension, styling and interior design.

GM has had little impact with its own top of the range European executive car sold as the Opel Senator/Vauxhall Senator, and it is clearly seeking to use the Jaguar marque to expand in this lucrative sector.

The GM plans are likely to face fierce resistance from Ford, its arch US domestic rival, however, which is now the largest single shareholder in Jaguar with a stake of at least 10.4 per cent.

Ford has already announced that it is seeking to become a "major shareholder" in Jaguar and has persisted in increasing its stake despite a hostile response from Jaguar management.

Privately, Jaguar officials accept that the contest between GM and Ford is likely to lead to an all-out bidding match between the two companies, and Jaguar believes that Ford could seek to undermine the planned deal with GM by launching an attractively-priced pre-emptive bid for the UK luxury car maker conditional on the removal or expiry of the Government's so-called golden share.

The golden share expires at the end of 1990 and gives the Government a right of veto over any changes to the Jaguar articles of association which presently limit single shareholders to a maximum of 15 per cent.

Midland & Scottish Res concentrates on Emerald

IN ITS half yearly report, up to June 30, USM-quoted Midland & Scottish Resources said activity was centred on development of the Emerald oilfield in the North Sea, for which it is prime contractor.

Production therefrom was expected to start next August. Costs, including interest on project loans, were being capitalised and amortised over the life of the field on a units of production basis.

In the half year the company cut its loss to £2.1m (£5.3m). The deficit mainly resulted from administrative expenses not directly associated with Emerald development, and finance costs connected with the convertible loan stock and standby underwriting agreement which have been redeemed and cancelled respectively following the recent rights issue.

Midland and Scottish was now structured to maximise the benefits to shareholders from the Emerald field, the directors said.

With the recent significant improvement in the offshore oil and services market, the company was set to take advantage of other major oil-field development projects.

Euro Disneyland allocations

By Ray Bashford

A HEAVY oversubscription for the 10.7m shares offered in Euro Disneyland has forced a ballot to decide allocations which favour small shareholders.

SG Warburg Securities, lead-manager for the non-French portion of the £600m European issue, said 171,000 British investors applied for the shares and that the £67m UK offer for sale was 4.7 times subscribed.

The international offer, comprising 42.94m shares offered throughtout the European Community excluding France, was 11 times subscribed.

The ballot covers applications for up to 1,500 shares under a scheme which is weighted in favour of those investors who made the smallest applications.

Those who applied for between 100-300 shares will have a 50 per cent chance of receiving 100 shares, while applications for between 500-750 shares will have a 45 per cent chance of receiving 200 shares and those seeking between 1,000-1,500 shares will have a 45 per chance of receiving 300 shares.

Other allocation levels are: applications for 2,000-2,500 will receive 300 shares, 3,000-3,500 will receive 400 shares, 4,000 to 4,500 will receive 500 shares and 5,000-15,000 will receive 10 per cent of the number applied for.

Those potential investors who applied for 20,000 shares or more will receive no allocation.

It is expected that the shares will be listed on the Paris, London and Brussels stock exchanges on November 6.

COMPANY NEWS IN BRIEF

AMERCOEUR ENERGY: In the first half of 1989 turnover came to £183,000 (£872,000) and loss before tax £236,000 (£342,000). Directors have taken all steps to curtail further operating losses and reduce dependence on fluctuating coal prices. Loss per share was 2.49p (1.84p).

GREYCOAT has issued a £26m three-year deep discount note at a coupon of 1.923 per cent. Net proceeds of some £18.4m are being used to finance the acquisition of Roman House in Wood Street, EC.

HILLSDOWN HOLDINGS is seeking shareholder approval to the purchase of its own shares. It will cover the buy-in of up to 10 per cent of the capital at a price not exceeding 5 per cent over the average middle market price in the prior 10 business days.

RELIANT GROUP subsidiary Wiseoak has agreed to sell its development site in Edenbridge, Kent, for £8.38m cash. The site has planning permission for a supermarket (pre-let to Budgen), light industrial units, other retail space, offices and residential units.

TRILION has exchanged contracts for the purchase of Merlin, a Cardiff-based production business, for an initial £400,000. Merlin's business centres around the corporate video market. The maximum consideration is £700,000 depending on post-tax profits increases in 1990 and 1991.

BOARD MEETINGS

The following companies have notified dates of board meetings to the Stock Exchange. Such meetings are usually held for the purpose of considering dividends. Official indications are not available as to whether the dividends are interims or finals and the subdivisions shown below are based mainly on last year's timetables.

TODAY

Interims- Amer Group, BMSS, Borland International, British & American Film Holdings, Centreway Trust, Diamond Group, Hammerson Property.

Finals- Allied London Properties, Lucas, McKechnie, Pict Petroleum, Prestwick, Shanwick.

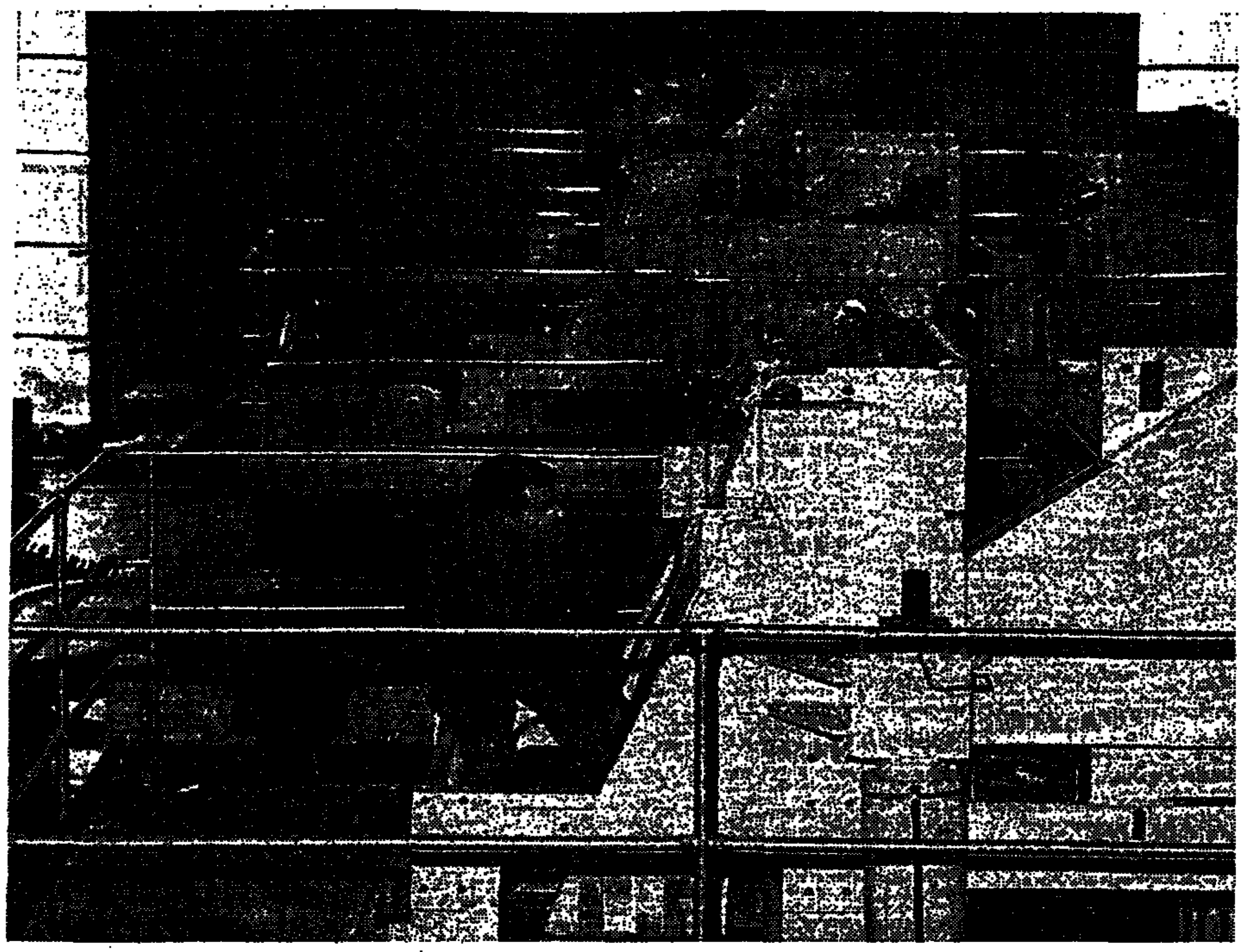
FUTURE DATES

Interims-	
Anglo American Coal	Oct. 31
Atlantic Resources	Oct. 25
Central & Sheerwood	Oct. 27
Delyn Packaging	Oct. 27
ERA	Oct. 27
Fleming Universal	Oct. 26
GEI International	Nov. 7
Grampian TV	Nov. 23
Shiloh	Oct. 25
Finals-	
Alva	Oct. 25
Imperial Cold Storage	Nov. 6
Rand Mines	Oct. 26
Star Computer	Oct. 27
Tiger Oats	Nov. 7

FINANCIAL TIMES SURVEY

Technology is so transforming the industry that it is hard to say where digitally generated image manipulation ends and printing begins. **Raymond Snoddy** says in the run-up to Europe's single market, concentration and internationalisation are the trends

In the grip of rapid change


HunterPrint opened a £31m web offset plant at Corby, Northants, last month

PRINTING TECHNOLOGY

CONTENTS

THE PRINTING industry, in all its manifestations – Britain's fifth largest manufacturing industry – larger even in output and employment than the car industry, is in a state of turmoil.

A traditional industry is in the grip of rapid technological change and dramatic restructuring. Some think the changes to come in the next decade will be more fundamental than in the 500 years since Caxton.

Developments including still video and the sort of digital image manipulation made possible by companies such as Quantel start to call into question the traditional boundaries between media.

Computerisation has already cut out whole processes in the preparation of words or images for printing. The electronic integration of words and graphics, already possible, should become a practical commonplace within three to five years.

Newspapers have over the past three years seen a much delayed technological revolution, with journalists in effect setting their own copy by direct inputting of stories into electronic newsroom systems.

The latest industry estimates suggest that within three to five years the words and pages will go direct to the printing plate in a stream of digital impulses, thereby cutting out yet another stage in the production process.

Mr Brian Blunden, chief executive of PIRA, the research association for the paper and board, printing and packaging industries, believes that technological change is having the effect of "moving all the action towards the originator" of words and pictures.

If anything, he believes the rate of change is speeding up.

Even the part of the printing business that seems most immune to change, bringing together ink, paper and image on a printing press, is developing rapidly with the growing sophistication of computer control systems, increasing use of robotics in paper handling and the introduction of short-grain web offset presses which make significant savings on paper.

At the same time as technology has been changing the face of printing, there has been at least at the top end of the market a deep restructuring as printing starts to follow publishing in responding to globalisation pressures.

Although the typical printer is a small businessman employing fewer than 10 people and the industry is still a fragmented one, in the first division new larger groupings are being created through hostile takeover battles for high technology companies in search of larger patrons to take on the costly business of innovation in a time of change.

The latest battle has been over the future of Norton Opax, the specialist printing and packaging group and itself a predator in the past. Norton last month accepted a £382m offer from Bowater Industries, the packaging and industrial products company, after dropping its own £679m bid for De La Rue, the banknote printer.

In turn, De La Rue sold Crosfield Electronics which produces everything from scanners used to input images into computers to electronic page composition equipment, for £235m to a 50-50 joint venture between Du Pont, the US chemicals group, and Fuji Photo Film of Japan.

As Mr John Holloran, chief executive of BPCC, the largest UK commercial printer, says: "It's a good time to be private."

Yet neither private nor public can escape the effects of technical change and the fact that almost any computer company that wants to can enter the pre-press area with a personal computer and a page make-up software package.

At Atex, the largest supplier of electronic newsroom systems, Mr Alec Hollingworth, vice-president of European operations, concedes the onward march of the PCs but argues the real challenge will be in the management of complex production systems such as large daily newspapers to keep track of every item of copy and remove bottlenecks.

An increased move towards editionalising, both of editorial and advertising, will mean the need for parallel systems, Mr Hollingworth believes. Such an Atex system with high power Vax computers is being used at the Boston Globe. "One page with full colour every minute – that's the objective. Though we haven't got there yet, that's the direction it's going," he says.

At Crosfield, Mr Jim Salmon, managing director, admits: "There's a fair degree of turmoil in the industry at the moment." But, when it settles, he sees the future role of companies such as Crosfield more as that of systems integrators and providers of software systems on top of its traditional ability to supply individual pieces of equipment.

Leaders of the industry had a glimpse of the depth of future technical change earlier this year when they visited Japan as members of the International Electronic Publishing Research Centre. Many technological innovations seen on the centre's first visit six years ago were now available as commercial products.

At Canon, the camera manufacturer which earns nearly 80 per cent of revenue from business products such as copiers, the group was shown a colour bubble ink-jet printer to be launched next year. It uses a thermal process to expand and expel ink particles rapidly onto the paper through four heads each with 128 tiny nozzles through apertures as small as three microns in size.

At Dai Nippon Printing, a general printing company whose annual sales exceed $7bn, the group was shown how high definition television pictures are being used as the basis of an "electronic book," described as a warmer and inherently more attractive medium than a printed book – at least to children.

The electronic book is probably 10 years away as a commercial product but already digital images from HDTV are used to generate conventional images in books – an extreme example of the digitalisation of information is leading towards a real convergence of previously separate media such as television and printing.

Less futuristic is the development of still video cameras for both consumer and professional use. Sony has developed a system that contains up to 25 frames on a single two-inch floppy disk and delivers still images quickly without chemical processing.

Mr Blunden, also chief executive of the International Electronic Publishing Research Centre, says such systems "could be to editorial direct input of picture images what the personal computer has been to direct entry of text."

After his study trip Mr Blunden issued a warning about the extent of the country's commitment to information technology expected to account for one third of Japan's capital expenditure by the year 2000.

The PIRA chief executive fears that few in the British industry really understand the impact of technology in creating multi-media industries in the way that he believes Mr Maxwell and Mr Rupert Murdoch, chief executive of News Corporation, do. "As we move towards 1992 and a single European market I think the UK needs another half dozen Maxwells and Murdochs," he says.

That may be a tall order but Mr Colin Stanley, director general of the British Printing Industries Federation, argues that the industry is a largely unsung success story.

Printing had revenues of more than £7bn last year, employed more than 200,000 people and was the eighth largest manufacturing industry. On the broader definition used by PIRA, which includes publishing, the sector is the fifth largest, with revenues of £13bn in 1987, the last year for which official statistics are available.

More significantly, according to Mr Stanley, last year British printing had a trade surplus of £88m after a £200m surplus in 1987, productivity increased by 35 per cent between 1985 and 1988 and the UK also had Europe's highest level of presses less than two years old.

An example of the scale of modernisation in the British industry came earlier last month with the opening by HunterPrint, which claims to be Britain's largest jobbing printer, of a £31m web offset plant at Corby.

Apart from technological uncertainty, the main difficulties the industry now faces are high interest rates and a feared slowing down in the growth rate of advertising revenue.

In the UK Printing Industry Statistics 1989*, published earlier this month, Mr Tim Rothwell, of Barclays de Zoete Wedd, says that, despite such difficulties, industry opportunities still look encouraging.

There are still prospects, Mr Rothwell believes, for print to increase its share of per capita advertising expenditure in both the UK and the rest of Europe; corporate activity in the sector is likely to remain high and the communications market in general will show above-average growth.

But he warns that the overall health of the sector will depend on the larger public and private companies together with possible alliances of smaller companies.

"These companies will need to become more active and aggressive in a European context in order to survive the challenges of the next decade," Mr Rothwell says.

**From PIRA, Randalls Road, Leatherhead, Surrey, KT 22 7RU. £295 to PIRA members, non-members £325.*

John Holloran: thin carpet and a tight rein on costs

Raymond Snoddy talks to John Holloran, BPCC chief executive

Top private on parade

LIFE HAS changed – very noticeably – for Mr John Holloran, chief executive of BPCC, Britain's largest commercial printer.

When he was chief executive of Mr Robert Maxwell's BPCC, the carpet was thick and the support systems just what you would expect in the headquarters of a major international publishing company. In an emergency, he could always hitch a ride on the Maxwell helicopter or the Maxwell executive jet.

The carpet is much thinner these days and John Holloran can be found up three flights of stairs – there's no lift – in modest premises on London's Waterloo Road.

The difference is the £265m management buyout that Mr Holloran successfully concluded with Mr Maxwell less than a year ago.

"In a buyout, you're sharing the dream that you're building a business to go public and it doesn't matter if the office is not very smart. I am prepared to go without any corporate comforts to drive this business on and I expect my management to do exactly the same," Mr Holloran says.

The man who tried and failed to buy his old employers McCorquodale before it went to Norton Opax is now firmly in the driving seat and believes it is a great time to be a private printing company.

Outside his door, the takeover battles rage as a process of polarisation seen already in the publishing industry starts to drive printing as well: the major printers get bigger and the medium-sized either get squeezed or taken over.

"We generate £50m a year cash, of which £25m is depreciation. Our past investment is throwing off enough cash almost to service our debt. So

"I would like to go public and build a truly global business"

as long as we don't put the company into some horrendous nosedive through bad management, which we won't, or alternatively the industry gets so bad, which I don't believe it will, then we are in a very strong position," Mr Holloran says.

The commitment to venture capital companies Electra and Candover is that within three to five years Mr Holloran will sell the company or take it public so that the investors can get their money out.

Releveraging BPCC, taking the original investors out and selling the business back again to its management is one clear option.

"At the moment I would like to go public and build a truly global printing business," says Mr Holloran in an echo of the publishing ambitions of his old boss, Mr Maxwell, who still holds a 19.9 per cent stake in BPCC, a stake that is convertible into 24.7 per cent on flotation.

The new private BPCC has been kept largely intact. One small credit card company has been sold and a general binding company at Harlow in Essex has been closed. The total number of employees, at 6,500, is 300-400 down on pre-buyout days but the reduction includes the removal of a layer of management, some of whom were offered and accepted pay cuts to stay on with BPCC.

"Robert Maxwell restructured, he worked hard at it and he left a good business. What we've got to do really is to sharpen it up everywhere and try to put the craft back into the business," says Mr Holloran.

This has included tightening up on all costs while at the same time giving more than 70 top managers the chance of a slice of the business through five-year share option schemes.

To say that John Holloran keeps a tight rein on costs amounts almost to an understatement. Every Tuesday there is a detailed examination of the state of the 45 separate units in the company. Any units absorbing as opposed to generating cash have to come to Mr Holloran as banker once a week.

"Of our 45 factories nearly 40 are cash positive," says Mr Holloran who is also, in the vein of Robert Maxwell, chief buyer for the company, personally clearing every purchase over £10,000.

"No company of this size is getting the kind of attention BPCC is," says Mr Holloran, who normally works 12-hour days, entertains customers two or three times a week but adds that at this level of business he is in effect looking after the shop all the time.

The share option scheme is not designed to create what Mr Holloran described as "a private thiefdom" with 78 printing millionaires after flotation but to provide enough incentive "to make that extra effort worthwhile."

The new BPCC, which prints around 600 titles including Radio Times and Readers Digest, says it has lost no major contracts since going private and has won the recently launched Me magazine and a significant slice of the cheque printing business of Barclays Bank.

The company has spent £30m this year and last on new equipment including new "short grain" presses from M A N Roland, presses that not only go faster than previous presses but save up to 15 per cent on paper.

The new generation of web offset presses coming unto the market is just one facet of new technology now changing the printing industry.

Within the three-to-five year timescale in which BPCC will either float or be sold, Mr Holloran expects to be electronically laying out pages and calling up graphics and pictures in digital form.

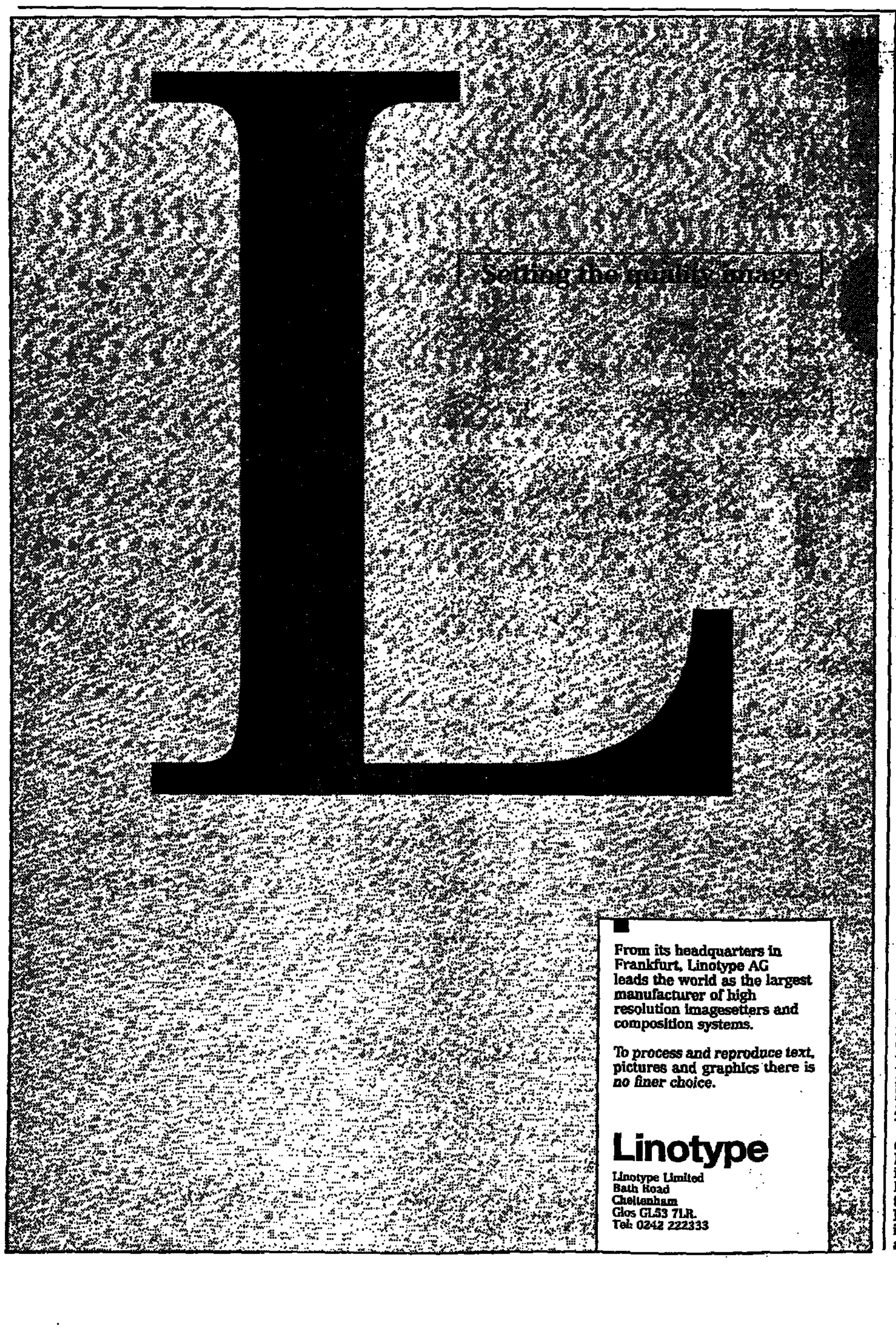
But the greatest change of all, he believes, is that printing is now seen by British management as a respectable business to come in to after the dark days of the 1970s when the

Deals for six-day working "will have to be negotiated"

industry nearly died.

If it is to remain competitive internationally, Mr Holloran argues, then the British printing industry will have to negotiate deals allowing six-day working.

"In 1992 we can go and take a slice of the European market in a big way or we can stay where we are, roll over and have them come over again," says Mr Holloran who foresees more marriages between British and continental European printing groups.



DESK-TOP PUBLISHING

Growth forecast scaled down

HAS desk-top publishing lived up to expectations? Just a few years ago it was billed as both a solution for most companies' printing needs and as a lucrative market sector for those companies selling the hardware and software.

Now both users of desk-top publishing (DTP) systems and analysts, with a keen eye on company profits, are taking a more sceptical view.

From the commercial viewpoint, analysts admit that the market is maturing. "It's by no means a dead market, there is still growth to be had," says Mr Bob Faulkner of Alex Brown, the New York investment bank. "But the easy sales have now been made."

US market research organisation Dataquest has also modified its predictions for the North American market. Last year it forecast that personal computer-based DTP systems would grow by 42 per cent every year until 1993. It has now reduced that to just 28 per cent a year for the next five years.

So what has caused the cold feet? From the consumers' point of view, it is now clear that DTP is not a panacea for all ills. In particular, many would-be converts have discovered that DTP systems can be quite difficult to use. "You can't just sit down and bang out these beautiful documents," says Mr Faulkner. "It needs time and training."

As a result, the biggest growth area in the UK has been in professional applications of newspaper and magazine publishing and graphic design. In the US newsletters top the list, followed by memos and internal documents, technical documentation, internal company reports and sales literature, according to a recent Dataquest survey.

The combination of customer resistance and a need to increase sales means that DTP companies are now focusing their products more precisely. When it was first launched about five years ago, DTP wavered half-way between professional publishing and word processing – a way for companies to prepare their own documents on a personal computer (PC) and print them out on a laser printer.

Now DTP is moving both downmarket, in terms of price and ease of use, and upmarket in terms of its capabilities.

For the lower end of the market most of the major companies are working on software which is easier to use. "A typical person who wants to add basic graphics to a business document doesn't need all the facilities of a graphic designer," says Mr Faulkner.

At the upper end of the market a growing number of magazine publishers are using in-house printing systems rather than sending their journals to outside printers. Companies such as Crosfield Electronics, a venture between Du Pont and Fuji, Scitex of Israel and Hell of West Germany are all selling systems which combine the ability to manipulate sophisticated graphics on an Apple Macintosh PC with professional printing machines and high definition colour scanners for inserting colour photographs.

Although Dataquest has slashed its predictions for market growth in PC-based DTP, it has upgraded its forecast for the high-powered systems, and now expects sales of those will grow by 18 per cent a year.

Further confusion in the PC-based DTP market has been fuelled by the unexpected decision of Apple Computer to swap allegiances on DTP standards. Apple has forged an alliance with Microsoft, the leading US software developer, to devise a new format for the way text is displayed and printed.

To do that, Apple has dissolved its former alliance with Adobe Systems of California, which developed display software called Postscript – a standard already endorsed by Digital Equipment, NEC, Wang and Fujitsu. Mr Jerry Byma, managing director of Adobe Systems Europe, in Amsterdam, argues that Postscript is already a de facto standard, with over 600,000 Postscript devices in use and

To increase sales despite customer resistance, companies now focus products more precisely

60 different products on sale incorporating the software.

In response to Apple's move, Adobe has decided to publish the coding it uses for its typefaces – until now available only to companies paying licence fees. Adobe is hoping this will continue to increase the spread of Postscript.

For computer users, the new alliance between Apple and Microsoft could result in Apple and IBM-compatible PCs being able to display and print out identical documents – particularly important for companies which use both types of computer on one local area network. But it looks like at least a year before the alliance will produce any commercial products.

Although commercial manoeuvrings may undermine DTP, technological developments – particularly in printers – look set to be its saviour. Until recently, two of the basic drawbacks of PC-based DTP systems were that they could only print in black and white, or in crude spot colour, and the range of half-tones, or greys, that they could produce were limited.

The speed with which colour printing will become widespread will depend on developments in colour printers – both laser and ink-jet models.

Ink-jet printers which, as their name suggests, shoot jets of four different coloured inks at the paper, are cheaper than laser printers but slower. The latest versions, for example, can print a page in about five seconds.

Most ink-jet printers now use ordinary paper – not the coated top still used by facsimile machines. And further developments are afoot to develop printers with up to 2,400 nozzles – the current breed typically have 50. That would mean the print bar could span an A4 page, which would reduce the number of moving parts and so increase reliability.

Because of these rapid developments, the Technology Partnership, the UK technical consultancy, believes that sales of ink jet printers will grow rapidly. By 1991, it predicts, the US market alone will be worth $1bn.

Another emerging business application of DTP does away with the printer altogether. Instead, the text and graphics produced on the computer screen are translated into material for slides or videotape. In the near future they could also be fed onto compact discs or videodiscs instead of onto paper.

Della Bradshaw

Tally Barrash, a franchisee of Kall-Kwik: "electronic design"

Typesetting combines with image reproduction

Technology has its uses

COMPUTERISED METHODS of print origination are gradually combining the activities of typesetting and image reproduction into a single function known as pre-press, but this remains distinct from printing, other than proofing in single copies or very short runs. Any consideration of the effect of new technology on the printing industry must therefore deal separately with pre-press and printing activities.

The expression "desktop publishing," invented by Paul Brainerd, founder of the Aldus company, to launch the PageMaker system four years ago, is misleading. The Aldus innovation, quickly followed by rivals such as Quark and Ventura, was to use the personal or micro-computer for page make-up on the computer screen, with immediate output of a reproducible original on a table-top laser printing device. This is a method of pre-press origination and as far from "publishing" as a microwave oven is from being a desktop restaurant.

The combination of text and graphics on screen, with whole page output by means of raster image processing, ie the consistent treatment of all page elements as digital dot images, applies equally to professional typesetting methods. The main difference is that professional front end systems are faster and more accurate because they use codes rather than the built-in menus of the DTP screen. The subsequent use of a typesetting machine, or "image-setter" as it is now known, provides far superior quality owing to the finer raster image resolution of more than 2,000 dots an inch, compared with 300 on most laser printers; not to mention vastly superior typeface resources.

The whole movement of text and graphic make-up on screen, whether DTP or otherwise, has had the profound effect on the typesetting business of separating the front-end or input activity from the image-setting or output. This may be seen as a first step in the distribution of pre-press activities from the trade to the customer, leaving the professional to put the finishing touches to the original, which he will receive either by telephone modem or on some form of data carrier such as a floppy

Magazine publishers are using DTP-based front end systems

disc, and output the content onto film or bromide paper for platemaking.

So far, this has led to the widespread establishment of typesetting bureaux, whose main activity is the processing of customers' discs, rather than keyboarding. Linotype's latest published list of such bureaux using Linotronic image-setters has more than 200 addresses in the UK.

Apart from inherent defects of speed and precision, DTP has suffered from lack of training of its operators, a fault that lies with the users rather than the suppliers. The best use of DTP is probably that made by instant print shop chains such as Kall-Kwik and Prontaprint, which have widely adopted the new technology to replace their previous typesetting and manual cut-and-paste methods, and have the resources to ensure that their franchisees receive the appropriate training. Kall-Kwik, using Aldus PageMaker in about 120 of its UK shops, promotes the method as "electronic design," not DTP.

Some other instant print shops have branched out into mainstream printing, while retaining the speed of service that justifies the "instant" tag. London-based Imediaprint, founded 20 years ago, now has six High Street shops using plain-paper copiers, backed up by five small offset production units and a full-scale sheet and web-offset printing factory in the City. The firm has its own typesetting subsidiary and has made a speciality of lengthy company publications, such as manuals, in relatively short runs, together with a 24-hour service for printed seminar papers.

This kind of work, as well as business stationery, is in many cases handled by large in-plant printing departments such as those of Shell, National Westminster Bank or British Telecom. These, incidentally, were among the first to increase their printing efficiency and economy by the use of management information systems, which are only slowly gaining ground within the mainstream printing industry.

At the front end of many inplant printing operations, corporate publishing systems are used. These differ from DTP by being multi-user, multi-tasking operations, with networking and powerful storage, sometimes associated with "demand printing" on digitally controlled xerographic machines. With major users in the aerospace and computer software industries, corporate publishing systems are already associated with "publishing" on the user's computer screen as well as in print.

Magazine publishers are now increasingly using DTP-based front end systems for monochrome page composition, as are book publishers, at least in the United States, where Viking Penguin has recently initiated a two-year plan to bring all pre-press origination in-house with a system supplied by Bestinfo.

Colour origination and printing: The US is also taking the lead in the introduction of "desktop repro" or in-house colour origination. This is still in its infancy and requires more accuracy than most DTP systems currently provide, since the four-colour process requires precise control of half-tone screen angles and multiplies any error by four.

So far, the only important distribution of colour pre-press activities outside the repro trade has been in the use of digital "design production" systems in graphic studios, to produce a magnetic tape which drives the professional's colour scanner or page imaging system. It is important to distinguish design *production* systems from mere *design* systems, which do not connect with any form of production other than a crude thermal colour print or a slide for use in business presentations.

Colour printing is now almost universal except for pure information printing and books of text only. The advance into colour has been made possible both by pre-press innovations and by the development of two-colour and four-colour printing presses of good quality right down to the A3 sheet size (two magazine pages to view) and even single-page A4. Suitable for inplant work, as well as the smallest mainstream printing company, such machines have made colour easy, and it is perhaps significant that a high proportion of them are of Japanese manufacture.

While the instant printer makes full use of plain-paper copiers for monochrome work, so long as quality requirements are modest and the run barely exceeds 100 to 200, colour copying has simply not begun to exist as a printing method. The latest colour copiers are, in fact, promoted as means of photographic enlargement with digital enhancement and graphic manipulation facilities, mainly for displays.

New technology has benefited the small printer and the instant print chain, enabling them to provide better and faster services. Inplant printing retains the advantages of close control, instant corrections and confidentiality but a firm must be large indeed to incorporate full-scale corporate publishing departments run on an economic basis.

Far from threatening the industry, it has increased awareness

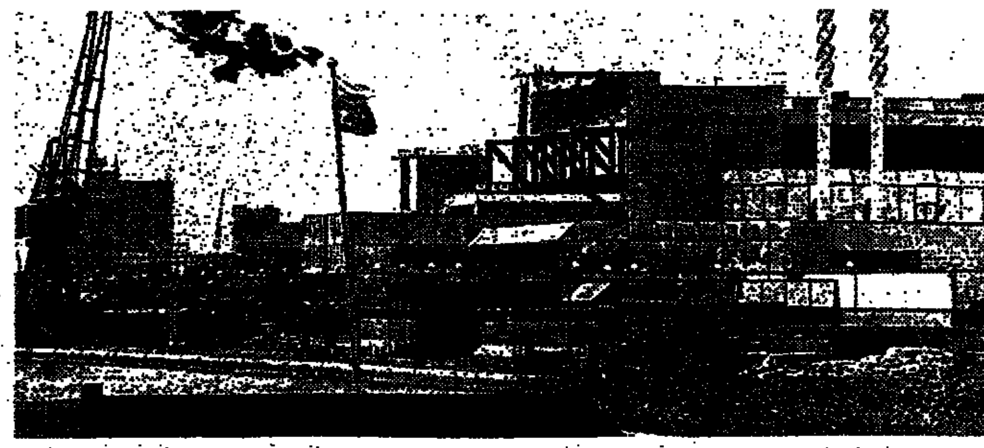
Much of the print produced by in-house DTP and corporate publishing systems would not have been produced as print with typographic design and graphic illustrations, before the new techniques became available. Far from threatening the printing industry, the information society has increased typographic awareness and the expectation of colour graphics, enabling the smaller printing company, suitably equipped with modern presses, to flourish more than ever.

Andrew Bluhm

Editor, Graphic Repro

Terry Byland looks at the outlook for newspapers and magazines

Rapid change colours future



The Daily Telegraph's new building in the Docklands development, London

THE REVOLUTION in newspaper and magazine publication has proved, like all the best revolutions, to be an ongoing rather than a final process. The mighty upheaval in the newspaper industry prompted by the move of the News International titles to Wapping in the East London Docklands, opened the way for an acceleration in daily publishing which now looks likely to continue into the next century without much pause for consolidation.

The first step beyond the relatively straightforward application of new technology to old newspapers has been the move to a rapid expansion of colour printing by the UK daily papers; now, pagination, or the direct on-screen preparation of newspaper pages has become the next hot priority.

These high-pressured changes in the UK printing industry have had the predictable effects associated with similar revolutions in industrial techniques. The sale this summer of Crosfield Electronics by De La Rue, the specialist and banknote printer, displayed all the symptoms of a volatile high technology business. Crosfield, one of the UK leaders in electronic colour page composition systems, has a £3.6m contract for colour printing equipment with News International, whose titles in this country range from The Times and Sunday Times to the Sun and Today.

Mr Jim Salmon, managing director of Crosfield, expects the Sun to be the first UK daily to appear in full colour, with the rest of the popular newspapers not far behind. The process of re-equipping UK daily newspapers for colour printing still lags some way behind the US industry.

The drive towards colour publication among UK newspapers, both dailies and weeklies, has been fuelled by the two most significant features of newspaper publishing development in the late 1980s. The first and most obvious has been the proliferation of new titles. After decades when new entrants to the newspaper business were virtually excluded by heavy start-up charges and then by near-crippling nightly printing costs, the industry is alive to plans for new newspapers, dailies and Sundays. Nor has the conspicuous failure of several ventures proved any discouragement.

The most recent outburst of activity has come on the Sunday front, where the Sunday Correspondent has already hit the streets while the Independent on Sunday is due early next year.

The Sunday Correspondent, with two sections and a magazine, displays clearly the second phenomenon among recent trends in newspaper publishing. After a lengthy and sometimes uncertain start, the principle of incorporating extra sections in both daily and weekly newspapers now appears to have established itself.

The newspaper world may need lessons from magazines

This proliferation of separate sectors inserted or added to the basic newspaper has quickly found favour with both readers and advertisers. The newspaper magazine sections require the application of both colour printing and colour pagination techniques. That implies a significant upgrading of forecasts for the new electronic printing techniques and equipment needed for colour work and for pagination.

The newspaper world may need to take lessons from the magazine industry in recognising that the time span available for the introduction of new techniques is often considerably shorter than managements might like. Magazines have sometimes been able to move more quickly than daily and weekly newspapers.

Magazine publishers have by tradition farmed out a large proportion of their printing problems. Once they saw the advantages to be obtained from new printing techniques, they were able to reshuffle their in-house editorial systems, and then switch their printing contracts to whichever contract printer was quickest off the mark.

They made swift use of the expansion of data transmission systems to produce up-to-the-minute tables of statistical data. The big, well-established US business magazines took the lead in this field.

For similar reasons, the magazine publishers have been quick to seize the opportunities for colour printing. This has been applied not merely in the use of colour photography, which already had a high profile in the magazine world. Colour printing has appeared more directly in the use of colour-coded charts, again in the business magazines, and in the wider use of coloured graphics.

However, magazine publishers now see the opportunity to achieve by means of the latest electronic techniques what has always been the industry's ultimate objective: instant, regular and reliable printing of a magazine that sells throughout the world, or at least throughout a market sharing a single language.

This implies continued pressure for high quality transmission of data, colour images and editorial, with desk-top electronic terminals taking on more and more of the roles required in more book publishing and similar operations where the accent is on static and less fluid publication flows.

The magazine industry has already reaped much of the benefit that new technology has brought to the pre-press area. To achieve successful, instant, global publication, the magazine publisher needs to tighten up the "closing time" of the publication, the tying together of pictures and text under merciless deadlines when there is no longer any time to spare for catching up on errors or late deliveries. The problems involved spill over from purely industry questions, such as the application of more powerful electronic terminals, into such wider areas as the state of telecommunications networks in particular countries.

The time when newspaper and magazine owners could think of technology in terms of decades has long gone. It is already clear that Fleet Street's Great Excursion from the centre of London to Docklands is only a first step into a new world.

The pressures on both newspapers and magazines in the UK have become so acute that the pace of change can hardly be exaggerated. With new publications, planned and actual, pressing forward on all sides, it is not surprising that the technology available is evolving almost from month to month.

PUBLISHING

Wait for the imprint of the copier

A 96-page paperback book press manufactured by Strachan Henshaw Machinery, installed at Cox & Wyman, Reading

TECHNOLOGICAL CHANGE in the book publishing industry has gone hand in hand with changes in readership habits and with wider-ranging shifts in managerial attitudes.

A glance at any airport bookshop will illustrate both points; there is, indeed, a new market for books but publishers are satisfying in with marketing techniques learned in the consumer product business. Some of these changes stem directly from the industry's move from the traditional flatbed letterpress operation to offset lithography, while others seem to have provided the motivation for technological change.

The introduction of litho printing has done wonders for profit margins, although the publishing world is in at least two minds over the wider implications. Rows between authors and publishers, once of only parochial importance, have this year found their way onto the pages of the national newspapers. The virtual demise of the Bodley Head, one of the oldest and most respected London publishers, came hard on the heels of the sale of Century Hutchinson to Random House of the US for £64.5m, a sum which reflected the industry's propulsion into the mega-corporation arena.

All this seems a far cry from the hopes, once widely entertained, that cheaper, desk-top electronics would mean a boom in small publishing enterprises or even do-it-yourself novelist publishers.

Contrary to these predictions, the number of genuinely independent UK publishers is decreasing, and those still in business are finding themselves under heavy pressure. Economies of scale, in terms of production, appear to have benefited the Big Battalions rather than the cottage industry.

One reason has been that litho printing has proved easy to do but not so easy to do well. Litho's great advantage is speed, but the ability to outstrip the old letterpress machines fivefold has opened the door to careless printing. Complaints from readers of typesetting and proof-reading errors, not to mention deeper betrayals of the finer points of print-lettering, appear to be on the increase.

In part, this is because once the new technology is in place, there is less inclination to accept wage costs for reading and checking the page proofs before pressing the magic button which sets the copy on its route towards the printed book. Printing costs are still a surprisingly small proportion of retail prices for books – around 15 per cent, according to the major publishing houses. The rest goes on distribution and, of course, on high-powered marketing.

The new printing techniques have proved better suited to some forms of publishing than to others. High quality reproduction of colour photographs, to take an obvious example, lends itself easily to this form of production. The processing of "information data," which can be presented in tabular form, is also suited to litho reproduction.

Some critics would claim that litho printing implies inferior reproduction of text, but there is little objective evidence of this. The best letterpress printing was always excellent, as can be the best litho work. The overriding factor is, of course, the cost; there can be no return to the days of fine printing craftsmanship for its own sake.

The way ahead for the book publishers is likely to be traced by commercial pressures as much as by technology. Desk-top publishing will certainly remain an important sector of the business, particularly for the production of short-run academic and technical publications.

With higher education now under its own financial pressures, academic budgets will flow increasingly towards the smaller, cheaper publisher, and it is doubtful if the big houses will seek to expand into this market. However, university spending on books has fallen by about one third over the past decade, a trend which spells ill for this sector of the publishing trade.

DTP can also be expected to hold its own in the expanding market for in-house publication of research or information data. The City of London has seen a substantial increase in this area of publication, and most of its research material is now "published" in the sense that it is made available to clients outside the firm on payment of a fee.

But it will be difficult for DTP to expand into the mainline publishing areas, the international fiction block busters or the coffee-table specials, because so much of the success in this field depends on heavy promotional and marketing efforts.

However, there are other areas from which the existing publishers could be challenged. Just as the UK publishing industry has seen a ruthless pruning of smaller firms and a simultaneous strengthening of the Big Battalions, so has the international publishing universe seen an increase in cross-border or cross-Atlantic operations.

As television soaps have moved from the US to British television screens, so have the multi-sized blockbuster novels familiar to the new generation of fiction readers. These novels have largely bypassed the lending libraries which were the conventional entry routes for new fiction.

Further incursions into UK publishing could well involve the application of new printing techniques which have to date barely established themselves. The most feared prospect is the application to book publishing of photographic printing, essentially the application of the same techniques as the office copier to large-scale printing.

Copier, or non-impact printing, is a likely next step for the UK industry and, as matters stand at present, it could only come from abroad. Japanese expertise in photo-copying could well be the area to watch for publishers seeking the next area of development.

Terry Byland

UK PRINTING BUSINESSES: MORE SMALL FIRMS

Number of employees	1982	1983	1984	1985	1986	1987
1-9	7,582	7,924	13,316	14,476	15,243	15,484
10-19	1,764	2,287	2,147	1,963	1,883	1,831
20-49	1,079	1,005	1,005	1,114	1,187	1,235
50-99	371	344	337	334	364	385
100-199	219	209	213	226	215	232
200-299	84	81	85	100	93	95
300-399	44	50	52	46	48	46
400-499	32	25	21	25	26	30
500-749	30	31	33	32	32	33
750-999	16	17	15	18	16	15
1000-1499	12	13	8	7	7	11
1500-1999	7	5	6	5	4	5
2000+	12	11	11	12	10	7
TOTAL	11,252	11,362	17,299	18,358	19,128	19,409

Source: Business Statistics Office

Paul Abrahams looks at the effects of computerisation on the industry

Larger companies get the benefits

COMPUTERS have not only infiltrated most industries, they have also permeated most operations of most industries.

The printing industry is no exception. From the creation of images and text through to their manipulation and layout, from the moment the presses run until the moment when the items are sold to the customer or returned to the original supplier – through all of these processes computers have become ubiquitous and increasingly essential for the efficient production and distribution of printed matter.

The effect of that computerisation on the various sectors of the printing and publishing industry has not been insignificant.

The high cost of computerised and automatic identification equipment, as well as the price of their successful implementation, can put such systems beyond the pockets of many businesses. The benefits of such systems are nevertheless real – in terms of smaller and more flexible runs as well as quicker turnaround times.

The effect of investment in computerised technology is to give significant competitive advantage to the larger companies which have the means to invest in such equipment.

One of the most startling examples of this double revolution – in both technology and in transforming the market – has been in the UK pre-press business where Wace, which now claims to be the largest pre-press company in the world, has achieved remarkable results. From being a shell in 1983, the company's turnover was £75.5m during the first half of this year, when profits reached £3.4m.

BRITAIN'S TOP 25 COMPANIES IN PRINTING

Rank	Company	Turnover (£m)	Pre-tax profit	Pre-tax margin (%)	Year end
1	MCC Print	669.4	66.2	9.9	31.12.87
2	DRG	507.4	40.7	8.0	31.12.87
3	Lawson Mardon	495.2	21.5	4.3	31.12.87
4	De La Rue	483.6	62.4	12.9	31.3.88
5	Jefferson Smurfit	278.6	-	-	31.1.87
6	Norton Opax.	272.9	35.6	13.0	30.9.88
7	David S Smith	268.2	30.6	11.4	30.4.88
8	Waddingtons	172.5	17.6	10.0	2.4.88
9	St Ives	167.3	23.0	13.7	31.12.87
10	Ferguson Ind	127.6	11.3	8.9	27.12.87
11	W M Collins	108.9	13.0	11.9	2.10.87
12	Hunterprint	95.6	6.4	6.7	31.3.87
13	Ben Johnson	76.2	4.8	6.3	31.12.87
14	McFarlane	67.1	5.6	8.3	31.12.87
15	Walmoughs	53.9	4.8	8.9	31.12.87
16	Goodhead	49.0	3.6	7.3	31.5.87
17	Jarrold	46.2	3.9	8.5	31.1.87
18	Moore Paragon	45.3	1.1	2.4	31.12.87
19	Kalamazoo	44.6	1.2	2.6	31.7.87
20	Bemrose	43.7	4.4	9.9	2.1.88
21	Williams Lea	43.4	2.2	5.0	2.10.88
22	Standard Check	43.1	3.4	8.0	31.12.87
23	Parkway	43.0	4.8	11.2	30.9.88
24	Norprint	42.9	2.6	10.6	1.3.88
25	Cundell	34.9	2.7	7.8	31.12.88

Source: Lithoweek

performance of paper from different suppliers. This, claims Mr Scragg, puts a formidable weapon into the hands of the printer when he approaches the paper companies.

"Now that manning levels are so much lower, the crew tends to be far less interested in recording problems than in just getting them fixed," says Mr Scragg. "The information technology system automatically records them.

"If you could reduce waste by just 0.1 per cent that can represent a saving of hundreds of thousands of pounds," he adds. "It also saves quite a lot of trees – a not inconsiderable consideration at a time of growing environment consciousness."

Data supplied by the management information system can also be used in other areas. Mr David Rates, head of the industrial organisation at Mannesmann Information Systems in the UK, points out that because such systems can also follow the quantities of paper and ink being used as well the amount of time taken for a run, the accuracy of job costing, invoicing, stock control and accounts can be significantly improved. For larger companies, with a number of sites, management information systems can also be used to allocate jobs to resources.

Crosfield Press Controls believes that because of such advantages the market for management information systems will grow extremely fast over the next few years. Mr Scragg says that in 1990 the market could be 60 to 80 per cent larger than this year, though he admits this is from a low base. He adds that the company has been amazed by the amount of interest expressed during the past 12 months.

The effect of this technology on the printing market could be similar to that in the pre-press market. Mr Scragg says that the cost of the technology at the moment – the price of a system can range from £10,000 to £100,000 for a single line – could concentrate business in the hands of the larger groups, at least until the entry cost for such systems falls. However, the company is trying to bring down the cost of low-entry systems in an effort to make it easier for smaller houses to invest in them.

They are becoming increasingly an integral part of the printing process

The commercial development of satellite technology – which should allow the worldwide transmission of high resolution colour graphics at guaranteed reproduction quality – should accelerate the concentration of reprographic business in the hands of groups like Wace.

However, for the suppliers of pre-press page composition technology – which involves the digitising and manipulation of images – growth has not been as constant.

The two market leaders in the field, Scitex of Israel and Crosfield Electronics, formerly owned by De La Rue, the UK security printers and now jointly owned by Dupont of the US and the Japanese company Fuji, have both experienced difficulties in recent years. So too has Hell, the West German supplier of electronic page composition systems owned by Siemens.

The consistently high cost of research and development in high resolution graphics and the cyclical nature of the market helped create the fall in Crosfield's profits from £21.1m in 1987 to £5.2m in 1988. That decline helped drive down De La Rue's overall profits by 57 per cent. Scitex had experienced a similar downturn in the early 1980s.

In the medium term, these companies will have to come to terms with competition from the manufacturers of increasingly powerful micro-computers, such as Apple Computer, which have more experience in selling high volume low-cost items. Both Scitex and Crosfield recently launched high performance micro-based systems.

One commentator at Pira, formerly the Printing Industry Research Association, believes that if these companies are to survive, they will have to start specialising in software and systems integration rather than specialist hardware platforms.

Nevertheless, the long-term potential for such companies, with their expertise in high-resolution colour graphics, is considerable. That is indicated by Mr Robert Maxwell's involvement in Scitex and the decision of Dupont and Fuji to acquire Crosfield Electronics.

At the bottom of the front-end market, desk top publishing, which has been one of the most dynamic sectors in the computer market, has been slowing down.

The Market Intelligence Research Company based in California and Belgium estimates that the rate of growth in the US market has slowed from 128 per cent in 1987 to 73 per cent in 1988. It believes that the slowdown will continue to 1990 when the rate will be about 19 per cent. An increasing percentage of the market will be made up of software.

But computers are not only being used as front-end systems. They are also increasingly becoming an integral part of the printing process.

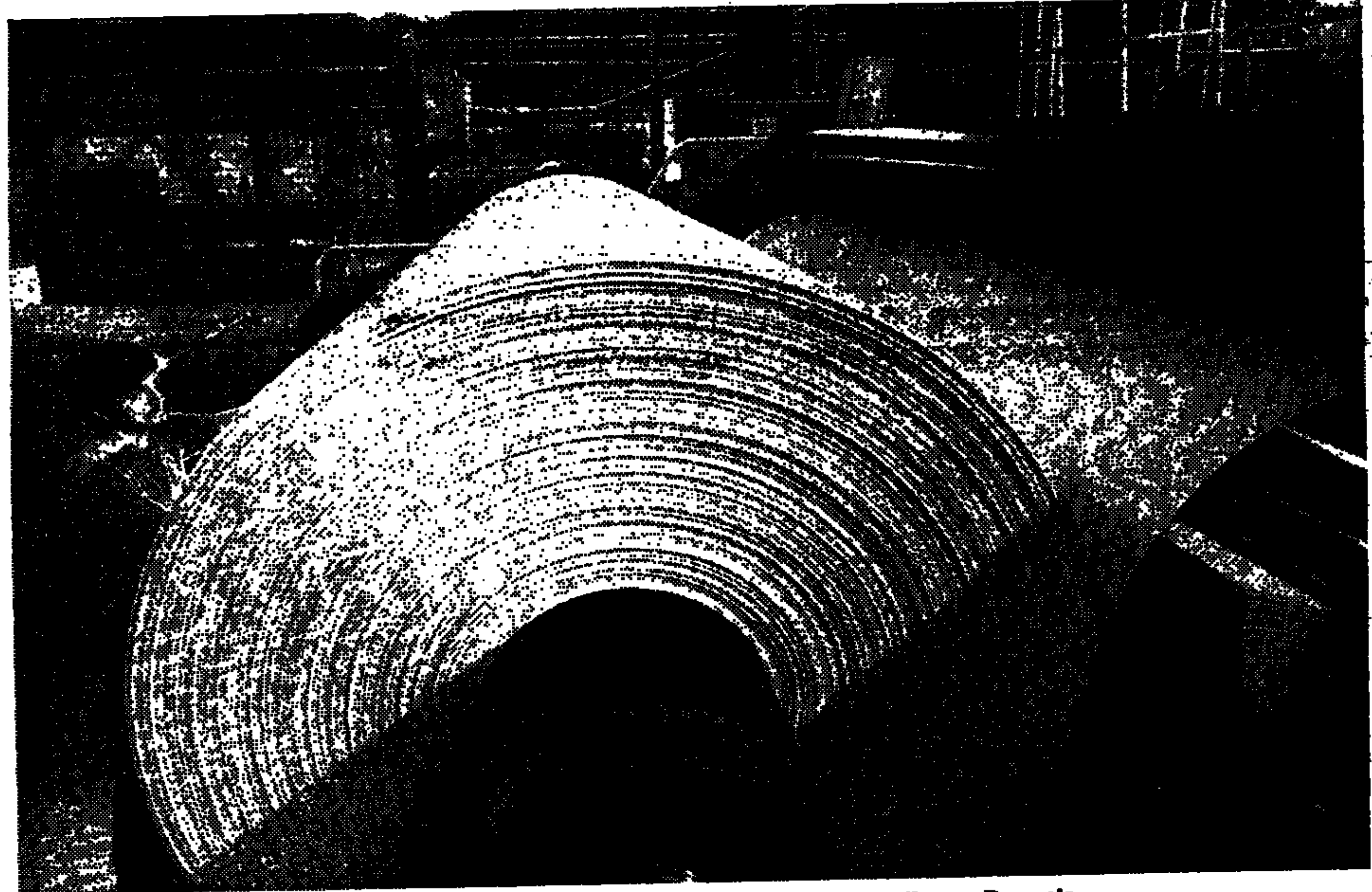
Two groups have identified management information systems linked to presses as being significant growth areas for the future. Mannesmann Information Systems, the UK subsidiary of the West German engineering group, and Crosfield Press Controls, a division of De La Rue, are marketing such systems heavily.

One of the main advantage of such systems is that they can reduce waste. Mr Ray Scragg, product manager for management information systems at Crosfield Press Controls, explains that camera technology has now reached the point at which it is possible to monitor fast moving web accurately.

This accuracy means that the printer can identify waste in real-time as it passes through the print process and then automatically divert the waste – as much as 20 per cent of the reel – into a waste bin.

The system will also identify where the waste occurs, whether through web breaks, make-ready waste, folder waste, mis-register waste or splicing.

In theory, such information can help managers improve the efficiency of their company's operations. Waste can be minimised either by adjusting the plant during the run or afterwards by analysing the



End of the line: a reel of paper nearing completion at Wiggins Teape's Virginal mill near Brussels

PACKAGING

The limitations of laser coding

FEW INDUSTRIES stretch the application of printing technologies as challengingly as the packaging industry.

Coding and marking methods vary, depending upon the needs of the user. The type of material to be marked, the plant environment and many other factors will determine ink selection and the marking method to be used for providing the best results.

Laser coding has received widespread acceptance for packaging applications. Products travelling at line speeds in excess of 2,400 a minute can be marked on the fly, without blurred characters.

But there are limitations to laser coding. For example, inked labels are easier to mark than a PVC container. The ability to mark a surface properly depends on the distances between various components within the system. Systems must be custom-designed for the distances necessary to achieve the desired mark.

That mark may be created by several means. Ink-coated materials, such as cartons and labels, are marked as the laser vaporises the surface coating of ink to reveal the paper or chipboard surface underneath. This etching also causes a frosted appearance on most kinds of glass. Certain materials react to laser by blistering slightly at the surface.

According to Lasertechnics, US-based specialist supplier of laser printing equipment, packaging applications for laser technology tend to be in marking labels or cartons. But other materials suited for laser marking include glass, coated metals and plastics.

Additives such as china clay, titanium oxide and talc can improve the mark quality. Uncoated metals cannot be marked as they reflect, rather than absorb, laser energy. The most common coding applications are for date and lot code information arranged within one or two lines, but bar codes and prices are also common.

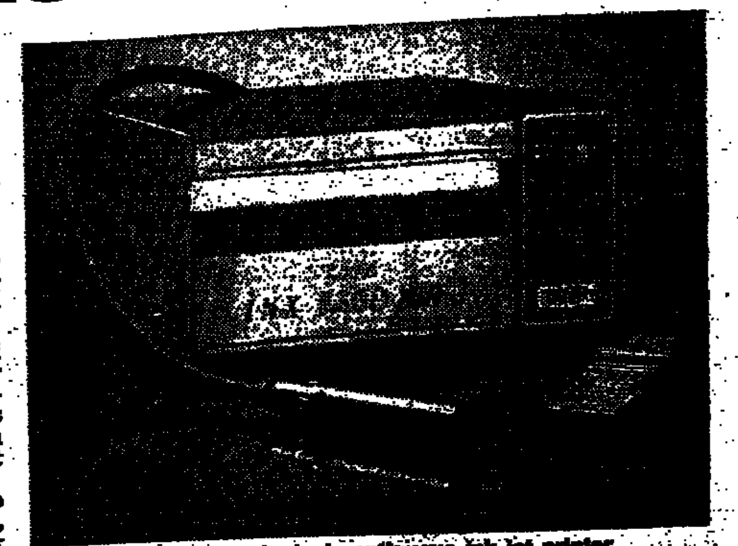
Of increasing interest is the use of laser coding to facilitate generic packaging, for example in cosmetics or automotive parts, where the difference between packages may be minor. However, where the coding of oddly shaped containers is important, for example for contract packagers, laser printing may not do the job efficiently.

As each system must be designed for a specific application, changes in materials, packaging lines or mark location must be considered in advance. Failure to do so may limit the ability to change over the system without some redesign.

Drug and cosmetic contract packaging requires the ability to handle a wide variety of shapes and sizes. Regulations may require a variety of batch coding and other identification. The ability to print legible but unobtrusive coding on designer bottles is important. This means that packaging lines have to be equipped with batch coding equipment.

Though ink jet printing technology, stemming from research in the computer industry, has had limited success in penetrating the market for mainstream computer printers, it has found a niche advantage over other technologies, including laser. Ink jet equipment is cheaper than laser, and usually takes up less space. However, the expected useful lifetime of laser coding equipment is more than twice that of ink jet coders.

One important advantage of laser coding is the elimination of ink and its associated problems of hazardous ink waste disposal and maintenance.



Linx Printing Technologies' continuous ink jet printer

Ultraviolet curing provides reduced machine maintenance, higher quality imprints, quicker drying times, lower ink toxicity and easier environmental compliance

Improvements are always being found, none the less. The control print division of Dennison Manufacturing, for example, is developing ultraviolet curable inks as an alternative to conventional ink systems for improved adhesion to films, foils and untreated materials used in the packaging industry.

In pharmaceutical and food manufacturing, the need for permanent, fast-drying imprints without the use of volatile solvents has always been recognised. The unique characteristic of this ink is the ability to dry through the ultraviolet curing process [illegible] remain wet on the ink jet printhead for an indefinite period of time while drying on a wide variety of surfaces instantly at speeds of up to 200 feet a minute.

Ultraviolet curing provides reduced machine maintenance, higher quality imprints, quicker drying times, lower ink toxicity and easier environmental compliance, as well as improved imprint permanency on a wide range of surface materials. When evaluating on-line versus off-line marking or coding, the manufacturer must take into account the desired imprint quality, production speeds, lot run sizes, number of message lines, message location and equipment cost.

On-line printing may be more desirable, but may not always be practical or cost-effective for the user's needs, according to Kiwi Coders Corporation. Friction driven coders for use on corrugated cases are inexpensive on-line devices which use disposable or reusable ink cartridges.

Friction driven coders are used to imprint date codes, production descriptions, sequential numbers and other variable data on one or more panels of filled corrugated cases. They are easy to maintain and service, and quality depends on the attention given to them by production line personnel.

But friction driven coders can distort case panels. Filled case contact printers provide better quality. For high quality imprinting and applications which require a large amount of copy, off-line flat case printers are recommended. Flat case printers can print all six panels on cases at speeds up to 5,000 cases an hour.

The same principles apply to printing paper or plastic bags. Automatic bag printers are available for printing variable information on one side of flat paper bags, feeding and stacking at speeds up to 30 a minute.

Large character ink jet printing offers character heights from three-eighths of an inch to three inches with line speeds up to 200 feet a minute depending on character size.

Most applications are on absorbent surfaces such as corrugated cases or paper bags where the ink dries by absorption. Inks for non-porous surfaces are also available but may require several minutes to dry, depending on the substrate. Forced hot air drying may be recommended for some applications.

Kiwi Coders predicts that contact printers will become simpler with fewer parts, using improved inking systems. Contact and non-contact printers will be combined for some applications.

Boris Sedacca

STARTING WITH a blank sheet of paper, Lawtons' new computerised labelling system can produce a label within minutes.

Its compact, high performance system is based on the so-called WYSIWYG principle – what you see (on the screen) is what you get (on the label). It marks the latest stage in a new technology development drive for the Liverpool company.

"Anybody can learn to use this labelling system," says Mr Len Bedford of Lawtons. To back up its ease-of-operation claims, the company will provide on-site demonstrations without any pre-formatting information. The system can operate with either dot matrix (left), or direct thermal (right) printers, and can handle sophisticated logos, ID marks and graphics, as well as bar code generation.

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DIARY DATES

FINANCIAL

TODAY
COMPANY MEETINGS-
Murray Income Tst., 7, West Nile Street, Glasgow, 10.30
BOARD MEETINGS-
Finals;
Allied London Properties
Lucas Inds.
McKechnie
Pict Petroleum
Prestwick
Shandwick
Interims;
Amer Grp.
BMSS
Borland Intl.
British & American Film Hldgs.
Centreway Tst
Diamond Grp.
Hammerson Properties
DIVIDEND & INTEREST PAYMENTS-
Abbott Mead Vickers 2.4p
Bank of China Fltg. Rate Nts. 1992 $526.74
Black (Peter) 1.75p
Britannia Arrow 2.3p
Christiania Bank OG Kreditkasse Fltg. Rate Sub. Nts. Oct.1997 $536.37
Church & Co. 3p
Daniels (S.) 1.25p
Die Erste Osterreich Spar-Casse Sub. Fltg. Rate Nts. Apr.1992 $536.37
Hughes Food 1.5p
Johannesburg Cons. 1500cts.
Nat West Finance Gtd. Fltg. Rate Cap. Nts. 2005 $526.74
Persimmon 2p
Raglan Property 0.165p
Scottish Eastern Inv. Tst. 1.15p
Texas Instruments 18cts.
Wilson (Connolly) 1.15p

TOMORROW
COMPANY MEETINGS-
Gold Greenless Trott, Le Meridien Piccadilly Hotel, W., 11.00
MAI, International House, World Trade Centre, E., 12.00
Mainmet Hldgs., Pennine Hilton National Hotel, Ainley Top, Huddersfield, 12.00
Osprey Comms., 9, Moorfields Highwalk, E.C., 10.00
Precious Metals Tst., 15, St. James's Place, S.W., 3.00
Waterman Partnership Hldgs., Apothecaries Hall, Blackfriars Lane, E.C., 12.00
BOARD MEETINGS-
Finals;
Cooper (Frederick)
Ensign Tst.
Pressac
ST. Ives
Scottish Metropolitan Property
Wolseley
Interims;
Boxmore Intl.
Chepstow Racecourse
Denistron Intl.
FR Group
Ingham (George)
Polymark Intl.
Shell Oil Co.
Value & Income
Vivat Hldgs.
DIVIDEND & INTEREST PAYMENTS-
Berkeley Govett 6cts.
Border Television 1.2p
Bristol & West Bldg. Society Fltg. Rate Nts. 1992 £178.01
Britannia Bldg. Society Fltg. Rate Nts. 1996 £355.4
Co-operative Bank Sub. Fltg. Rate Nts. 2000 £178.01
Hartons Grp. 0.1p
Industrias Penoles Fltg. Rate Nts. 1989 $255.56
Lloyds Bank Series A Var. Rate Sub.. Nts. 1998 £356.03
MTM 1.4p
Mezzanine Capital BDS Ptg. Rd. Pf. 3667cts.
Osprey Comms. 2.4p
Tops Estates 1.5p

WEDNESDAY OCTOBER 25
COMPANY MEETINGS-
Davies (D.Y.), Barber-Surgeons Hall, Monkwell Square, E.C., 11.00
Merivale Moore, Savoy Hotel, Strand, W.C., 12.00
Triton Europe, Stationers' Hall, Ave Maria Lane, E.C., 11.30
BOARD MEETINGS-
Finals;
Alva Inv. Tst.
Barrett (Henry)
Overseas Inv. Tst.
Interims;
Atlantic Resources
Chevron Corp.
Elliott (B.)
English Nat. Inv.
Jacob (W. & R.)
Mezzanine Capital & Income
Plastiseal
Shiloh
Sotheby's Hldgs.
Upton & Southern
Usher Walker
Walker Greenbank
DIVIDEND & INTEREST PAYMENTS-
Bankers Tst. New York 52cts.
Cadbury Schweppes 9% 1st Mtg. Db. 1988/93 3.477pc.
Cannon Street Invs. 3.3p
Conversion 9½% 2004 4¾pc.
Exchequer 11% 1991 5½pc.
General Electric 41cts.
Manchester (City of) 11.5% Rd. 2007 5¾pc.
Manufacturers Hanover 82cts.
Murray Income Tst. 4.7p
Precious Metals Tst. 0.55p
Psion 1p
Serco Grp. 3p
TSB Gilt Fd. Ptg. Rd. Pf. (Class B) 1p
Treasury 10% Cv. 1990 5pc.
Westminster & Country Props. 12p

THURSDAY OCTOBER 26
COMPANY MEETINGS-
CALA, 42, Colinton Road, Edinburgh, 10.00
Gabicci, Gabicci House, Humber Road, N.W., 4.00
Haynes Publishing, Sparkford Motor Museum, Sparkford, Somerset, 1.00
London Merchant Securities, Carlton House, 33, Robert Adams Street, W., 12.00
Platon Intl., Platon Park, Viables, Basingstoke, Hants., 10.00
Sirdar, Cedar Court Hotel, Wakefield, 12.00
Tor Inv. Tst., City of London Club, 19, Old Broad Street, E.C., 12.00
BOARD MEETINGS-
Finals;
British Assets Tst.
Investors Capital Tst.
Kalamazoo
Majedie Invs.
National Home Loans
Pegasus
Rand Mines
Interims;
Airflow Streamlines
Brown (J.)
Channel Tunnel Invs.
Flemming Universal Inv. Tst.
Moss Bros Group
SKF
Toshiba Corp.
DIVIDEND & INTEREST PAYMENTS-
Australia (Commonwealth of) 11⅜% Ln. 2015 5$\frac{11}{16}$pc.
BPP Hldgs. 4p
Bank of Montreal 10¾% Dep. Nts. 1990 5⅜pc.
Benchmark Grp. 0.875p
Brasway 1.07625p
Desoutter Bros 3.6p
Inv. Tst. of Guernsey 0.625p
Lambert Howarth 3p
Malaya Grp. 0.75p
Merchant Manufactory Estate 1p
Needler Grp. 3.15cts.
Neill (James) 3.1p
News Int. 9% Gtd. Bds. 1990 4½pc.
Olives Hldgs. 3p
Rotork 3.5p
Sinclair Goldsmith 3.5p
Sunset & Vine 1.5p
Travis Perkins 2.5p
Wimpey (George) 4p

FRIDAY OCTOBER 27
COMPANY MEETINGS-
Assoc. Nursing Services, Meadbank Nursing Home, 12, Parkgate Road, S.W., 4.00
Optical & Medical Intl., 2, Lowndes Place, S.W., 12.00
Really Useful Grp., Palace Theatre, Cambridge Circus, W., 11.00
BOARD MEETINGS-
Finals;
Clydesdale Inv. Tst.
GC Flooring & Furnishings
Star Computer
Interims;
Central & Sheerwood
Clayton, Son & Co.
Craig & Rose
Delyn Packaging
ERA Grp.
Ferguson Ind. Hldgs.
Govett Strategic
Hopkinsons Hldgs.
Lanca
NEC Corp.
New Throgmorton Tst.
Radamec
Waverley Mining
DIVIDEND & INTEREST PAYMENTS-
Bank of Nova Scotia 23cts.
Baynes (Charles) 0.25p
Beatrix Mines 63cts.
Bourne End Properties 1p
Breedon 1.5p
British Mohair Hldgs. 1.4p
Brunning Grp. 3.25p
Butler Cox 1.75p
Davies (D.Y.) 3.5p
Davis (Godfrey) 2.6p
Epwin Grp. 1.8p
Exchequer 13½% 1994 6¾pc.
Exchequer 15% 1997 7½pc.
First Leisure Corp. 1.125p
Fleming Technology Inv. Tst. 0.135p
Goodhead Grp. 3.75p
Hall Eng. 6.6p
Helton Hldgs. 1.1p
Do. 6% Cm. Pf. 2.16p
Highlands & Lowlands Berhad 7.5sen
Jacobs (John I.) 1.5p
Lopex 2.9p
Lowe's 12cts.
Matthews (Bernard) 1p
Metalrax Grp. 0.96p
Nat West Finance Gtd. Fltg. Rate Cap. Nts. 1992 $265.29
Norfolk Capital Grp. 0.21p
Norish 4.47p
Nurdin & Peacock 1.68p
Pacific Dunlop 8.98% Med. Term 27/10/89 4.49pc.
Do. 9.1875% 4$\frac{19}{32}$pc.
Do. 9.15% Iss 3 4.575pc.
Do. 9.15% Iss 4 4.575pc.
Do. 9.15% Iss 5 4.575pc.
Do. 9.15% Iss 6 4.575pc.
Do. 9.15% Iss 7 4.575pc.
Do. 9.15% Iss 8 4.575pc.
Do. 9.05% 4.525pc.
Paragon Comms. 1.4p
Pickwick Grp. 1.25p
Ricardo Grp. 3.65p
SWP Grp. 0.5p
Saville Gordon (J.) 1.6p
Seacon Hldgs. 1.2p
Sedgwick Grp. 4p
Sumit 1.5p
Telfos Hldgs. 3.6p
Trinity Int. Hldgs. 2.3p
Waterman Partnership Hldgs. 4p
Wyevale Garden Centres 1.8p

SATURDAY OCTOBER 28
DIVIDEND & INTEREST PAYMENTS-
Pacific Dunlop 9.48% Med. Term 28/10/91 4.74pc.
Do. 9.54% Med. Term 28/10/91 4.77pc.

Trade fairs and exhibitions: UK

Current
London Motor Fair (01-385 1200) (until October 29)
Earls Court

Current
Home Interiors Exhibition (01-385 1200) (until October 25)
Olympia

October 24-26
International Leisure Business Week Exhibition (0372 372842)
NEC, Birmingham

October 24-26
Omnec: The fibre optics users exhibition and conference (0223 242946)
Barbican Exhibition Hall, London

October 26-29
National Knitting Exhibition (0272 701370)
NEC, Birmingham

November 2-5
London Money Show – MONEY (01-940 2244)
Olympia

November 7-9
International Banking Exhibition (01-749 9535)
Barbican Exhibition Hall, London

November 7-12
Kensington Antiques Fair (04868 22562)
Kensington Town Hall

November 11-19
Caravan, Camping & Holiday Show (01-222 9341)
Earls Court

November 12-16
Wholesale Buyers' Gifts Fair (01-855 9201)
Olympia

November 14-16
International Coil Winding Exhibition (0799 26699)
NEC, Birmingham

November 14-16
Industrial and Domestic Heating, Ventilating and Plumbing Exhibition (01-680 7525)
Olympia

November 14-17
International Bus, Truck and Car Product and Manufacturing Technology Exhibition and Conference – AUTOTECH (021-780 4171)
NEC, Birmingham

Overseas exhibitions

Current
International Robotics, CAD/CAM, Automation Engineering Exhibition - PRODUCTIQUE (01-225 5566) (until October 26)
Paris

Current
International Electronics, Computers, Materials and Semi-Conductors Exhibition - IECM (01236 2399) (until October 27)
Beijing

October 31-November 2
International Clothing Textiles Trade Fair – INTERSTOFF (01-734 0543)
Frankfurt

November 8-11
International Office Environment Exhibition (01-486 1951)
Tokyo

November 14-18
International Maritime Equipment and Inland Shipping Exhibition (01-495 7977)
Amsterdam

November 15-19
International Machine Tools and Metalworkings Trade Exhibition and Conference – THAI METALEX (0494 729406)
Bangkok

November 21-25
Furniture and Woodworking Machinery Show (01-379 0765)
Taipei

Business and management conferences

October 24-25
International Business Communications: *Third annual* conference on the management and marketing of unit trusts (01-637 4383)
London Marriott Hotel, W1

October 27
CBI Conferences: Manufacturing: Maintaining the momentum (01-379 7400)
London

October 30
The Watt Committee on Energy: Energy: Today's decisions, Tomorrow's world (01-379 6875)
Guildhall, London

October 30
The Institution of Mining and Metallurgy: Mining finance (01-580 3802)
London

October 31-November 2
Blenheim Queensdale: UK national conference on paperless trade (01-727 1929)
Queen Elizabeth II Conference Centre

October 31-November 2
Financial Times City Seminar (01-925 2323)
Plaisterers Hall, City of London

November 2
Concorde Services: Advertiser supported TV: threat or opportunity? (01-743 3106)
Hilton Hotel, London

November 3
The Chartered Institute of Management Accountants: Practical pricing policies (01-637 2311)
Crowne Plaza Hotel, Manchester

November 6-7
Financial Times Conferences: Business with Spain – strategies for 1992 and beyond (01-925 2323)
Palace Hotel, Madrid

November 10
HS Conference Studies: The probate and estate planning secretary today (01-936 2382)
The Park Lane Hotel, London

November 13-14
AIDA International: Trade in the single European market (Brussels 32(0)2 345 99 23)
Copenhagen

November 14-16
Blenheim Online: Computers in the City (01-868 4466)
Barbican Centre

November 14-15
FT Conferences: World shipping (01-925 2323)
Amsterdam

November 16
The Henley Centre: The UK economy in the 1990's (01-353 9961)
Cavendish Conference Centre, London

November 16-17
FT Conferences: World electricity (01-925 2323)
Hotel Inter-Continental, London

November 17
Acquisitions Monthly: Post-acquisition management (0823 332023)
Portman Hotel, London

November 20
IBC/ Ernst & Young: Claims reserving in the London insurance market – asssessing your fund practical examples (01-637 4383)
London Press Centre

Anyone wishing to attend any of the above events is advised to telephone the organisers to ensure that there have been no changes to the details published

PARLIAMENTARY

Today

Commons: Social security questions.
Children Bill, remaining stages.
Lords: Local Government and Housing Bill, report.

Tomorrow

Commons: Defence questions.
Opposition motion on interest rates and economic policy.
Children Bill, remaining stages.
Lords: Local Government and Housing Bill, report.

Wednesday

Commons: Foreign and Commonwealth questions.
Companies Bill, remaining stages.
Lords: Local Government and Housing Bill, report.
Select committees: Welsh Grand Committee: subjects, the valleys programme and the NHS in Wales. (Room 10, 10.30 a.m. and 4 p.m.)
Environment: subject, contaminated land. Witnesses: National Rivers Authority. Environmental Resources. (Room 21, 10.30 a.m.)
Agriculture: subject, land use and forestry. Witnesses: Agriculture Department and the Forestry Commission. (Room 20, 10.45 a.m.)
Energy: subject, industrial and commercial gas prices. Witness: Mr James McKinnon, director-general, Office of Gas Supply. (Room 8, 11 a.m.)
Trade and Industry: subject, future of the Export Credits Guarantee Department. Witness: Lord Trefgarne, Minister for Trade. (Room 15, 11.30 a.m.)
Employment: subject, tourism. Witness; London Tourist Board and Convention Bureau. (Room 20, 4.15 p.m.)
Home Affairs: subject, racial attacks and harrassment. Witnesses: Home Office officials. (Room 15, 4.15 p.m.)

Thursday

Commons: Home Office questions.
Questions to the Prime Minister.
Companies Bill, remaining stages.

Friday

Commons: Football Spectators Bill, ways and means resolution.
Prisons (Scotland) Bill, consolidation measures.
Statute Law (Repeals) Bill, consolidation measures.

APPOINTMENTS

GrandMet management moves

NEW FINANCE directors have been appointed at two of Britain's most aggresive companies, *writes Lisa Wood.*

Mr David Nash, finance director of CADBURY SCHWEPPES, the soft drinks and confectionery group, is joining GRAND METROPOLITAN, the drinks and retailing group, to take up the same post there.

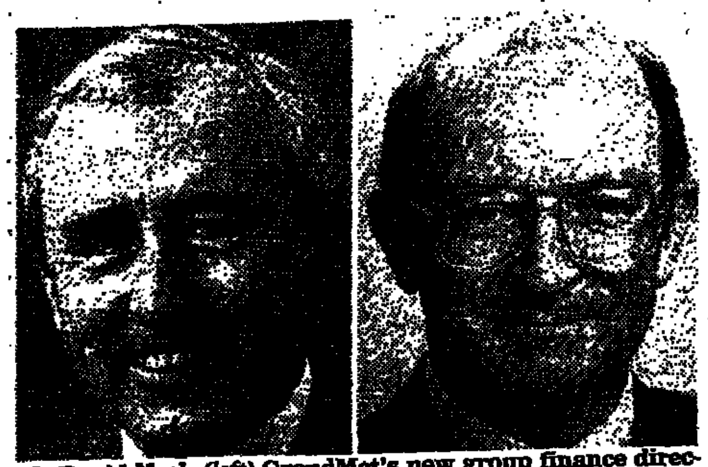
He will replace Mr Clive Strowger, who combined his post of finance director with responsibility for retailing and property. Mr Strowger, who earlier this year publicly stated that he intended to leave his post, will leave GrandMet next spring.

Mr Nash will be replaced at Cadbury Schweppes by Mr Neville Bain, who, as managing director of Cadbury's confectionery division, has over the past three years been responsible for several new confectionery acquisitions in Cadbury which is now concentrating on confectionery and soft drinks.

Mr Nash has been finance director at Cadbury Schweppes during one of the most active periods of the group's development and profits growth. Cadbury said :" David Nash has made a substantial contribution to the growth and development of the business over the past 2½ years and his board colleagues wish him well in his new role."

At Grand Metropolitan his job as dedicated finance director will include groupwide functional responsibility for accounting and financial control, treasury, tax, systems and investor relations.

Mr David Simon, deputy chairman elect and chief financial officer at BP is will become a non-executive director of the brewing and retailing group from November 1.



Mr David Nash *(left)* GrandMet's new group finance director, and Mr David Simon *(right)* non-executive director.

■ Mr Robert Gardner has been appointed property director for the Channel Tunnel project on BRITISH RAIL's property board.

■ SWISS CANTOBANK (INTERNATIONAL), London branch, has appointed Mr R.E. Staehli as general manager, and executive director of the bond and equity trading arm Swiss Cantobank Securities. Mr S.P. Cossins becomes deputy general manager and senior manager-operations, and company secretary of the bond trading arm. Mr Staehli and Mr Cossins join from BSI - Banca della Svizzera Italiana. Mr I.E. Elstein is made senior manager - commercial banking. He was capital markets director, ANZ McLaughan. Merchant Bank. Mr Peter Bebb joins from James Martin Associates as business systems director. Mr Kenneth King becomes director, international equity research and portfolio management. He was an executive director at Rothschild Asset Management Holdings.

Mr Michael Reynolds *(above)* has been appointed board member for procurement in National Power - Thermal, a CEGB division. He was divisional contracts manager, generation development and construction division.

■ Mr Andrew Peters has been appointed managing director of INTEGRAL TECHNOLOGY, a Third Wave Group company. He was a director of SD-Scicon.

■ Sir John Milne, chairman of Blue Circle Industries, and of DRG, is joining the board of AVON RUBBER as a non-executive director on November 1.

■ Mr John Ellis has been appointed managing director of CROWN UNIT TRUST SERVICES, a wholly-owned subsidiary of Crown Financial Management.

■ Mr Keith Jecks has been appointed business dvelopment director of KLEINWORT BENSON INVESTMENT MANAGEMENT. He was a director of Lloyds Investment Management, and Lloyds

■ DAWSON KEITH, Havant, part of the Associated British Engineering Group, has appointed Dr Max Wilson as managing director. He was customer services director, Chloride Power Electronics.

■ Mr Malcolm Hatch has been appointed executive sales director of BURLINGTON SLATE, Kirkby-in-Furness. He was group export sales manager.

■ Mr John Crozier, a director of Rex Stewart Group, and chairman and chief executive of the Riley Group of human resources companies, has joined the board of LOPEX which recently acquired the Rex Stewart Group.

■ VICTORIA PALACE, which owns the freehold of the Victoria Palace Theatre, has appointed Mr Stephen Waley-Cohen as managing director. He was joint chief executive, Maybox Group.

Senior posts at ICI Fibres

■ Mr David Thackwray has succeeded Mr Hugh Corran as sales and marketing manager for ICI FIBRES' hosiery and knitting businesses, Harrogate. Mr Corran is to develop Fibres' international sales and marketing structure in Europe and overseas for the 1990s. Mr Thackwray was head of ICI (UK) Fibres, where he is succeeded by Mr Tony Pillar, who was responsible for carpet and technical products fibres.

■ Mr Jean Pierre Landre and Mr Michael Stoddard have been appointed directors of NU-SWIFT INTERNATIONAL.

■ Mr Keith Hatter has been appointed managing director of PRIVATE ACCESS STORAGE, Newbury, Berks. He was responsible for property acquisition and national sales.

■ COOPERS & LYBRAND, Birmingham, has appointed Mr Jonathan Lander as audit and investigation partner, and Mr Kelvin Hard as director of organisation and human resources.

■ Mr Dennis R. Twist, commercial director, engineering and construction sector, John Brown, has been elected chairman of council, BRITISH CHEMICAL ENGINEERING CONTRACTORS ASSOCIATION.

■ MORGAN GRENFELL has appointed Mr Guy Dawson and Mr John Rawlings as deputy chairmen of Morgan Grenfell & Co.

■ Mr C.R. Millington has been appointed divisional director on the main board of JCT600. He was managing director of Bramall's Ford Dealers.

■ Mr J.C.S. Mott, who was chairman of May Gurney Holdings up to the recent management buy-out, has been appointed a non-executive director of MAY GURNEY GROUP, Norwich.

■ We have been asked to point out that Mr Peter Whitham remains head of treasury at HILL SAMUEL BANK until a date to be decided, when Mr Philip Guy, who joins the bank on November 1, will take over.

CONTRACTS & TENDERS

INVITATION TO TENDER
Issued by the Guyana Sugar Corporation Limited
For a project to be financed
By The
Inter-American Development Bank
Loan Contact No. 154/1C- GY
Supply of spares for Sugar Factory Equipment

Tenders are hereby invited from suppliers for the provision of factory spares to be acquired under an Industrial Reactivation Loan Programme the Inter American Development Bank (IDB) is partially funding this rehabilitation programme through LO - 154/1C GY eligibility with respect to origin of goods as and service will be determine pursuant to the rules applicable for the use of the fund.

Tenders are invited from firms which are from regional or non-regional MEMBER countries of the IADB for the supply of the following spares which are dividend into two groups indicated in the corresponding documents.

Contracts would be let following international competitive bidding by The Guyana Sugar Corporation Limited through the Central Board Committee of Ministry of Finance

FACTORY SPARES

Group A Mills
Group B Diesels

Specifications contained in the tender document permit offers of spares which have similar characteristics and provide equal performance and quality to those stated

Tender documents can be obtained from the office of C Czarnikow Inc 75 Wall Street New York NY 10005. United States of America or the Guyana Sugar Corporation Limited to the appropriate address below against a non reimbursable payment of 500 Guyana dollars or equivalent in foreign exchange by crossed cheque in favour of the Guyana Sugar Corporation Limited.

The tenderer shall furnish as part of his tender a tender bond in favour of the Chairman Guyana Sugar Corporation Limited

In the value of 5 percentage of the CIF tender price

Tenders shall be in English submitted in duplicate and delivered in plainsealed envelopes which in no way identify the tender to the chairman of the central tender board committee at the appropriate address below

Tenders close at 14.00 hours local time on the 14th of December 1989.

The Chairman
Central Tender Board Committee
Rehabilitation Sugar Programme
Industrial Reactivation Loan Programme

Mr E O S Hanoman
Finance Director
Guyana Sugar Corporation Limited

22 Church Street
Georgetown
Guyana

YACHTS & POWERCRAFT

Judicial Sale

On Wednesday, November 15, 1989 at 14.00 hours the twin-screw motor yacht under number 711552 in the Register of Ships at Southampton, United Kingdom, "Extases A", - hereafter "the Yacht" -, will be sold by enforced sale in a session of the District Court at Bois-le-Duc, The Netherlands, Beurdsestraat 30.

The sale will take place at the request of the company organized and existing under the laws of the United Kingdom PKFinans International (UK) Limited of London, United Kingdom, - hereafter "the Bank" -, in this matter having chosen domicile at Rotterdam, The Netherlands, Blaak 333, at the offices of Loeff & van der Ploeg, advocates and notarios public, as well as at Oss, The Netherlands, Raadhuislaan 2, at the office of the town clerk and at Bois-le-Duc, The Netherlands, Sint Joriastraat 11, at the office of van Leeuwen & Van der Eerden, attorneys, of whcih firm Mr. W.M.C. van der Eerden, LL.M., has been appointed attorney to pursue the judicial sale of the Yacht in the above-mentioned session.

The sale will take place for account of the owner of the Yacht the company organized and existing under the laws of the Channel Islands Mercury Cruising Limited of St. Peter Port, Guernsey, Channel Islands, and having office there at Frances House, Sir William Place.

The sale will take place by virtue of the engrossment of a judgement dated September 30, 1989 of the District Court at Bois-le-Duc, The Netherlands rendered under number 3358/88. The above-mentioned engrossment and decree were served upon the above-mentioned owner on October 7, 1988, with the order to pay the sum amounting of *ƒ 5,209,549.59 for principal and ƒ 193,978.31 for interest, without* prejudice to interest and costs otherwise due.

Technical data of the Yacht:
motor yacht, built at Oss, The Netherlands, at the yard of Heesen Shipyards B.V. in 1987, length 31.52m, breadth 7.60m, moulded depth 3.25m, maximum draught 2.76m, gross Tonnage 236 tons, net tonnage 71 tons, propulsion two 16-cylinder engines, bore 142mm, stroke 160mm, with a capacity of 1932 kw, built by Klöckner-Humboldt-Deutz AG at Köln, Federal Republic of Germany.

The Yacht will be sold "as is where is". The Yacht which was seized before judgement on August 19, 1988, by R.J.M. van der Vlies, process-server with the District Court and the Cantonal at Bois-le-Duc, The Netherlands is presently lying at Oss, The Netherlands, at the yard of Heesen Shipyards B.V., Inspection of the Yacht can only take place after prior permission of the advocates of the Bank.

Heesen exercises with respect to certain claims a lien on the Yacht.

At the request of the Public Prosecutor, the Examining Judge, entrusted with the handling of criminal cases in the District Court at Bois-le-Duc, arrested the Yacht on the 9th November 1988 by virtue of articles 552 h et seq. of the Dutch Code of Criminal Procedure, after the authorities of the United States of America has requested same to the Ministry of Justice at The Hague, The Netherlands. The arrest was upheld by decision dated 5th April 1989 (reference 320/88) of the District Court at Bois-le-Duc, in which decision the Examining Judge was granted leave to put the Yacht at the disposal of the Public Prosecutor on condition that on the surrender of the Yacht to the authorities of the United States of America it is agreed that the Yacht shall be returned as soon as the necessary use has been made thereof in the criminal proceedings.

With respect to the lien as well as the criminal arrest of the Yacht and further criminal actions as referred to above, the Bank refers to Article 4 of the Sales Conditions. These Sales Conditions have been filed at the office of the clerk of the District Court at Bois-le-Duc, The Netherlands.

The Yacht will be sold to the highest bidder in the Dutch auction. Bidding at the auction can only take place by advocates or notaries public admitted in the district of Bois-le-Duc, The Netherlands.

The upset-price of the Bank on the Yacht with appurtenances amounts to ƒ6.400,000.—.

The attorney of the Bank.

Further information will be given by Mr. R.P.M. van Leeuwen, LL.M., of Loeff & van der Ploeg, advocates and notaries public, Blaak 333 or P.O. Box 21022, 3011 GB respectively 3011 AA Rotterdam, The Netherlands, tel.:10-4147555, telex: 23395 (lex nl).

LEGAL NOTICES

Meeting of Creditors pursuant to Section 98 of the Insolvency Act 1986

TRANSFINANCE LIMITED
TRANSURANCE LIMITED

5 park Street, Leamington Spa, Warwickshire

NOTICE IS HEREBY GIVEN, pursuant to Section 98 of the Insolvency Act 1986, that a Meeting of the above named Companies will be held at 141 Great Charles Street, Birmingham, B3 3LG on Tuesday the 31st day of October 1989 at 11.00 am for the purposes mentioned in Sections 99, 100 and 101 of the said Act.

Creditors should forward a Statement of their claim by 12 noon on Monday the 30th day of October 1989 to Henry Edward Hayes Licenced Insolvency Practitioner, of 141 Great Charles Street, Birmingham, B3 3LG, who will, free of charge supply to those Creditors whose claims have been lodged in writing by the prescribed time on that day with such information concerning the Company's affairs as they may reasonably require.

Dated this 16th day of October 1989.

B. WORTHINGTON
DIRECTOR

Meeting of Creditors pursuant to Section 98 of the Insolvency Act 1986

DENNY'S JOINERY & STAIRS LIMITED

Formerly of Newport Road, Coventry, West Midlands

NOTICE IS HEREBY GIVEN, pursuant to Section 98 of the Insolvency Act 1986, that a Meeting of the above named Company will be held at Birmingham and Midland Institute, 9 Margaret Street, Birmingham, B3 3LG on Thursday the 2nd day of November 1989 at 11.00am for the purposes mentioned in Sections 99, 100 and 101 of the said Act.

Creditors should forward a Statement of their claim by 12 noon on Wednesday the 1st day of November 1989 to Henry Edward Hayes Licenced Insolvency Practitioner, of 141 Great Charles Street, Birmingham, B3 3LG who will, free of charge, supply to those Creditors whose claims have been lodged in writing by the prescribed time on that day with such information concerning the Company's affairs as they may reasonably require.

Dated this 13th day of October 1989

W. SMITH.
DIRECTOR

CLUBS

RENTALS

LEGAL COLUMN

Government faces problem over corporate law

By Philip Goldenberg

THE Government's attempt to reform the law of corporate ultra vires, to prevent companies acting outside their powers, is likely to be frustrated by its drafting of key provisions in the Companies Bill, which is being considered at report stage in the Commons this week.

The problem arises because of the interaction of two provisions of the Bill, relating to the objects of a company as set out in its memorandum of association.

A company's memorandum of association is a long, boring and, normally, unread document. A company is a creature of statute and only exists for the objects set out in its memorandum. For this reason, and because of a body of case law, lawyers have drafted ever longer and more complex objects clauses to ensure a company's capacity to undertake any particular transaction cannot be impugned.

Although every paragraph in an objects clause is expressed to be a self-standing object of the company, there is a conceptual division between "objects" and "powers." Accordingly, objects clauses will set out in two or three paragraphs the principal (genuine) objects of the company; contain a further paragraph giving it an object of doing anything that is ancillary or conducive to those principal objects; and then go on to set out a range of powers to cover every conceivable transaction into which it might wish to enter.

The existing law is set out in Section 35 of the Companies Act 1985 which provides: "In favour of a person dealing with a company in good faith, *any transaction decided on by the* directors is deemed to be one which it is within the capacity of the company to enter into, and the power of the directors to bind the company is deemed to be free of any limitation under the memorandum or articles."

It has long been recognised that there are a number of difficulties with the operation of this section. The fundamental difficulty is that the "good faith" test has been interpreted by the courts as meaning that mere knowledge by a third party of any limitations deriving from the constitution on the authority of the directors to bind a company will remove the protection intended to be conferred.

The Government is undoubtedly right to alter this and it was the recommendation of Dr Dan Prentice of Oxford University who was commissioned by the Department of Trade and Industry in 1985 to advise on the implications of abolishing the ultra vires rule.

The Government proposes to substitute for the existing Section 35 a new provision. The key paragraph of this provision is: "The validity of an act done by a company shall not be called into question on the ground of lack of capacity by reason of the fact that it is beyond the objects of the company stated in the memorandum of association."

The word "objects" is the crucial one to note. It is crucial because the Companies Bill goes on to provide for a substituted Section 4 in the Companies Act 1985. The principal provision of this Act is: "A statement that the object of the company is to carry on business as a general commercial *company means that the object of the* company is to carry on any trade or business whatsoever, and in such a case the company has power to do all such things as are incidental or conducive to the carrying on of any trade or business by it."

The intended effect of the latter provision is that lawyers can put away their word processors and companies can have one-sentence objects clauses. This effect is achieved as regards "objects" in the genuine sense of the term but it does *not* achieve its intention so far as "powers" are concerned.

The solution is to provide that a general company has the power to do anything subject to express limitations in its memorandum

This is because, in the second part of the substituted Section 4(2), the "powers" conferred on a company which state that its object is to carry on business as a general commercial company, are limited to such things as are "incidental or conducive to the carrying on of any trade or business by it."

It must be uncertain what exact powers are thereby conferred. For example:

● A general commercial company will clearly be able to sell assets out of its trading stock as part of its day-to-day business. Suppose, however, that it wishes to sell a large property interest, which may no longer be relevant to its business activities, or to sell the whole or a main part of its undertaking and assets – perhaps to effect a merger or because it is part of a group of companies and a strategic decision has been taken to discontinue that business.

Is the power to do so "incidental or conducive to the carrying on of any trade or business"? Hardly, and a solicitor acting for the purchaser would be unwise to rely on the proposition.

● As a corollary of its power of sale, a general commercial company can clearly buy assets, for example as part of the manufacturing chain or property in which to conduct its business. However, suppose it wants to diversify, by acquiring either a different business or a company carrying on a different business. Is that "incidental or conducive to the carrying on of any trade or business by it"?

The answer is uncertain, as it is not clear whether the phrase refers to an existing business. A vendor who was taking a cash consideration might take a chance but a vendor receiving shares would almost certainly not rely on a marginal construction of the statute.

● A general commercial company would clearly have power, say, to guarantee the obligations of one of its suppliers to that suppliers's bank if it felt that thereby it was securing a source of supply which was commercially necessary.

By contrast, take the normal situation of a group of companies where the group's principal bankers require that each company in the group gives an unlimited multilateral guarantee – particularly where the group's treasury function is totally integrated. In other words, the group guarantees the bank borrowings of every other company in the group. Is that "incidental or conducive to carrying on its trade or business"? Probably not.

● A group's banker which takes security for the group's bank borrowings will normally require not only a charge from the parent company over all its assets but from all subsidiaries. Is the giving of that charge "incidental or conducive" to the business of each subsidiary? Almost certainly not – and in any event no bank is going to take the risk.

● The Government encourages charitable giving and companies now have a simplified procedure to make tax-efficient charitable donations. Is a charitable donation "incidental or conducive" to carrying on a business? Probably not, unless the charity relates in some way to the company or its activities.

The solution, if the Government is to achieve its objective of eliminating unnecessary legal verbiage from companies' memoranda of association, is to alter the substituted section 4(2) to provide that a general commercial company has the power to do any act whatever, subject to any express limitations on its powers contained in its memorandum of association.

It is to be hoped that the Government will accept this concept when an appropriate amendment is moved at the report stage this week.

Philip Goldenberg is a corporate finance partner in City solicitors S.J. Berwin & Co.

LEGAL APPOINTMENTS

LAW SOCIETIES ADMISSIONS 16th OCTOBER, 1989

FT UNIT TRUST INFORMATION SERVICE

● For Current Unit Trust Prices on any telephone ring direct-0836 4 + five digit code (listed below). Calls charged at 38p per minute peak and 25p off peak, inc VAT

AUTHORISED UNIT TRUSTS

Unit Name | Init Chrge | Canc. Price | Bid Price | Offer Price | Yield Gr's | City-line

GUIDE TO UNIT TRUST PRICING

INITIAL CHARGES
These represent the marketing, administrative and other costs which have to be paid by new purchasers. These charges are included in the price when the customer buys units.

OFFER PRICE
The price at which units may be bought.

BID PRICE
The price at which units may be sold.

CANCELLATION PRICE
The maximum spread between the offer and bid prices is determined by a formula laid down by the government. In practice, unit trust managers quote a much narrower spread. As a result, the bid price is often set well above the minimum permissible price which is called the cancellation price in the table. However the bid price might be moved to the cancellation price in circumstances in which there is a large excess of sellers of units over buyers.

TIME
The time shown alongside the fund manager's name is the time at which the unit trusts' daily dealing prices are normally set unless another time is indicated by the symbol alongside the individual unit trust name. The symbols are as follows: ♥ - 0001 to 1100 hours; ♦ - 1101 to 1400 hours; ♠ - 1401 to 1700 hours; ♣ - 1701 to midnight.

HISTORIC PRICING
The letter H denotes that the managers will deal on a historic price basis. This means that investors can obtain a firm quotation at the time of dealing. The prices shown are the latest available before publication and may not be the current dealing levels because of an intervening portfolio revaluation or a switch to a forward pricing basis.

FORWARD PRICING
The letter F denotes that prices are set on a forward basis so that investors can be given no definite price in advance of the purchase or sale being carried out. The prices appearing in the newspaper show the prices at which deals were carried out yesterday.

SCHEME PARTICULARS AND REPORTS
The most recent report and scheme particulars can be obtained free of charge from fund managers. Other explanatory notes contained in last column of the FT Unit Trust Information pages.

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Unit Name	Init Charge	Canc. Price	Bid Price	Offer Price	Yield Gr's	City-line
Waverley Unit Tst Mngmt Ltd (1600)F						
13 Charlotte Sq, Edinburgh						031-225 1551
Australasian Gold	5	16.02	16.02	17.04	0.00	41588
Pacific Basin	5	30.51	30.51	32.45	0.60	41589
Can Balncd Gwth	5	51.38	51.38	54.65	0.10	41590
Ginnie Mae	4	0.9738	0.9738	1.0143	7.70	41591
Penny Share	5¼	27.85	27.85	29.62	0.50	41592
Wellington Fund Mngrs Ltd (1200)F						
2, London Bridge, SE1						01-407 4404
Wellington Income	5¼	132.5	134.1xd	142.6	6.23	41593
Wellington Growth	5¼	218.1	220.1xd	234.1	1.31	41594
Wessex Asset Management (1350)F						
1 Richmond Hill, Bournemouth BH2 6HW						0202 299432
Wessex UK Gwth	4½	105.6	109.5	114.0	3.05	41595
Whittingdale Unit Tst Mgmt Ltd						
2 Honey Lane, London EC2V 8BT						01-606 3132
Challenger	2½	60.18	60.18	61.73	0.27	41596
Short Dtd Gilt	1½	81.57	81.57	82.40	6.99	41597
U.S. Govmt Bond	1¼	.5730	.5730	.5805	0.00	41598
Wilshire Financial Services Ltd (0900)F						
PO Box 515 Austin Friars, London EC2						01-588 7511
Aust Friars W'wide	5	187.7	190.7	202.8	2.60	48637
Windsor Trust Mngrs Ltd (1200)F						
83 Kingsway, London, WC2B 6SD						01-405 8331
Comdty & Equity	5	58.16	61.56	65.48	7.24	41599
European	5	73.56	73.96	78.66	0.10	46303
Far Eastern	5	64.76	68.01	72.35	0.61	46304
Growth Inc	5	77.20	80.67xd	85.81	1.57	41600
Growth Acc	5	77.27	80.74xd	85.89	1.57	46996
Income Inc	5	74.22	76.71xd	81.60	5.21	41601
Income Acc	5	74.32	76.81xd	81.70	5.20	46997
Property Share	5	47.88	47.88	51.05	1.11	41602
Smaller Co's	5	49.45	49.45xd	52.71	1.80	41603
Nth American	5	64.24	64.24	68.70	1.60	41209
International	5	49.40	49.40	52.89	1.41	41210
Asset Value	5	154.51	154.51	165.24	4.43	41044
Wright Seligman Fund Mngrs Ltd (1700)F						
11 Blomfield St, London EC2M 7AY						01-588 0592
Intl Growth	5	109.58	109.58	115.05	4.08	41604
UK Growth	5	90.01	90.01	94.74	3.17	–
UK Income	5	93.33	93.33	98.24	4.58	–
Weekly dealing day Tuesday						
The Yorkshire Unit Tst Mngrs Ltd (1300)F						

	Bid Price	Offer Price	Yield Gross	City-line
Albany Life Assurance Co Ltd—Contd.				
European Fd Acc(z)	265.7	279.6	–	41695
Intl Fxd Int Fd Acc(z)	209.5	220.5	–	41698
Fixed Int Acc(z)	346.8	365.0	–	41694
Gtd Money Fd Acc(z)	241.3	253.9	–	41695
High Income Fd Acc(z)	114.1	120.1	–	41696
Intl Man Fd Acc(z)	426.2	448.6	–	41697
Japan Fd(z)	313.5	329.9	–	41699
UK Smllr Co's Fd Acc(z)	112.2	118.0	–	41704
European Metro	118.7	124.9	–	47025
Global Metro	107.3	112.9	–	46534
Sunrise Metro	123.0	129.5	–	47026
UK Metro	107.6	113.2	–	46537
Nth American Fd Acc(z)	211.5	222.6	–	41700
Pac Basin Fd Acc(z)	159.9	168.3	–	41701
Prop Fd Acc(z)	352.6	371.2	–	41702
Millennium	95.2	100.1	–	47027
Multiple Inv Acc(z)	714.7	752.3	–	41703
Pension Funds				
Brit Blue Chip Acc(z)	149.8	157.6	–	41705
Eq Pen Fd Acc(z)	1956.6	2061.8	–	41706
Euro Fd Acc(z)	360.6	379.6	–	41707
Fixed Int. Acc.(z)	718.5	756.3	–	41708
Gt Money Pn Acc(z)	441.6	464.8	–	41709
High Interest	149.7	157.5	–	46536
High Income Fd Acc(z)	120.1	126.9	–	41710
Intl Man Fd(z)	654.9	689.3	–	41711
Jap Pen Fd Acc(z)	449.3	472.9	–	41712
UK Smllr Co's Fd Acc(z)	116.5	122.6	–	41716
European Metro	130.9	137.7	–	47028
Global Metro	113.6	119.5	–	46535
Sunrise Metro	137.4	144.5	–	47029
UK Metro	114.0	120.0	–	46538
N Am Pn Fd Acc(z)	265.9	279.9	–	41713
Pac Basin Fd Acc(z)	190.7	200.7	–	41714
Property(z)	625.0	657.9	–	41715
Mtple Inv Pens Acc(z)	1450.8	1527.1	–	41717
Dunbar Funds				
Pert. Pen. Fd	96.5	101.5	–	41718
YRA Strategy	125.3	131.8	–	41719
YRA Performance	107.9	113.5	–	47497
Laughton Dollar ($D)	140.8	148.2	–	41720
Allied Dunbar Assurance Plc				
Allied Dunbar Ctr, Swindon SN1 1EL				0793 514514
Fixed Int. Dep. Acc	268.1	282.3	–	41725
Equity Acc	869.6	915.4	–	41726

Citicorp British National

Perrymount Road, Haywards Heath

Managed, International, Property, Equity, New Technology, American, Orient, European, Fixed Interest, Deposit, Managed Series 2, Property Series 2, International Series 2, Equity Series 2, SV Global Gwth Ser 2, Managed Pension Accum., Managed Pension Cap., Property Pens Accum., Property Pens Cap., Equity Pensions Accum., Equity Pensions Cap., New Tech Pens Accum., New Tech Pens Cap., Intl Pens Accum., Intl Pens Cap, Fixed Int Pens Accum., Fixed Int Pens Cap., Anglian Fund, Celebration Fund

City of Edinburgh Life Assurance

2 Eyre Street Hill, London

Managed Inv Tst Fd, Risk & Reward Bond, Guaranteed Cash Fd, Global Growth Fd, Special Sits Fd, UK Blue Chip Fd, Far Eastern, Ivory & Sime Pens Fd, Risk & Reward Pens Fd, Murray J'stone Pens Fd, Inv Strategy Pens Fd, Predator Pens Fd

OTHER UK UNIT TRUSTS

INSURANCES

Continued on next page

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	Bid Price	Offer Price	Yield Gross	City-line
Premium Life Assurance Co Ltd				
37-39, Perrymount Road, Haywards Heath 0444 458721				
American	126.0	133.0	–	43285
Building Soc. Fd	176.0	186.0	–	43286
Balanced	279.0	294.0	–	43287
European	190.0	200.0	–	43289
GT Managed	187.0	197.0	–	43290
Gartmore Mngd	127.0	134.0	–	43291
German	144.0	152.0	–	43292
Gilt	176.0	186.0	–	43293
Global	49.0	52.0	–	46834
High Inc	108.0	114.0	–	43294
International Equity	195.0	206.0	–	43295
Japan	271.0	286.0	–	43296
Managed	57.0	60.0	–	43297
Property	294.0	310.0	–	43298
R. W. Imperial Gold	148.0	156.0	–	43299
UK Equity	321.0	328.0	–	43300
Pension Funds				
American	155.0	164.0	–	43301
Building Soc. Fd	179.0	189.0	–	43302
Balanced	218.0	230.0	–	43303
European	191.0	202.0	–	43305
German	126.0	133.0	–	43308
Gilt	153.0	162.0	–	43309
International Equity	143.0	151.0	–	43310
Japan	148.0	156.0	–	43311
Managed	62.0	66.0	–	43312
Property	225.0	237.0	–	43313
UK Equity	306.0	323.0	–	43314
Professional Life Assurance Co Ltd				
Frobisher Hse, Nelson Gate, Southampton 0703 232323				
Pensions Managed Fund	92.84	98.15	–	42263
Pensions Cash Fund	80.83	85.08	–	42264
Prolific Life & Pensions Ltd				

	Bid Price	Offer Price	Yield Gross	City-line
Wardley Investment Services—Contd.				
	$ 9.74	10.34	–	45978
Canada Equity	$ 10.58	11.24	–	45979
Europe Equity	$ 9.29	9.86	–	45980
Hong Kong Equity	$ 12.35	13.10	–	45981
Japan Equity	$ 12.77	13.56	–	45982
Singapore & Malaysia	$ 8.75	9.29	–	45983
UK Equity	$ 9.35	9.92	–	45985
USA Equity	$ 10.26	10.84	–	–
Intl Managed Bond	$ 4.42	4.67	–	45988
Sterling Bond	$ 9.42	9.95	–	45990
US Dollar Bond	$ 4.64	4.88	–	45991

OFFSHORE AND OVERSEAS

GUERNSEY (SIB RECOGNISED)

MANAGEMENT SERVICES

JERSEY (SIB RECOGNISED)

IoM (SIB RECOGNISED)

LUXEMBOURG (SIB RECOGNISED)

SWITZERLAND (SIB RECOGNISED)

GUERNSEY (**)

JERSEY (**)

FT UNIT TRUST INFORMATION SERVICE

ISLE OF MAN (**)

LUXEMBOURG (**)

OFFSHORE INSURANCES

OTHER OFFSHORE FUNDS

LONDON SHARE SERVICE

BRITISH FUNDS

"Shorts" (Lives up to Five Years)

Amount £m	Stock	Price £	Red. Yld.	Last xd	Interest Due	City-line
174	Exch 10¼pcCv '89	100xd	—	9.10	15 May 15 Nov	1255
1,000	Treas 13pc 1990‡‡	99⅞	14.38	8.6	15 Jul 15 Jan	1300
500	Treas 2pc IL '90(84.6)	132½	9.98	19.6	25 Jul 25 Jan	1311
1,400	Exch 11pc 1990‡‡	99	13.84	12.7	12 Aug 12 Feb	1257
1,250	Exch. 12½pc 1990	99⅞	14.08	16.8	22 Sep 22 Mar	1262
550	Treas. 3pc 1990	95xd	11.27	2.10	8 Nov 8 May	1325
600	Treas 8¼pc 1987–90‡‡	96⅞	13.43	9.5	15 Dec 15 Jun	1340
955	Treas. 8pc Cv 1990‡‡	96¼	13.29	9.6	16 Jul 16 Jan	4680
1,887	Treas. 10pcCv 1990	96xd	13.29	18.9	25 Apr 25 Oct	1288
500	Exch 2½pc 1990	92xd	9.73	16.10	22 May 22 Nov	1270
2,200	Treas 11¾pc 1991	98	12.99	27.6	10 Jul 10 Jan	1292
400	Funding 5¾pc '87–91‡‡	92¾	11.47	1.9	5 Oct 5 Apr	1275
400	Treas. 3pc 1991	90xd	10.03	9.10	13 Nov 13 May	1326
646	Treas 10pc Cv '91‡‡	96¾	12.40	27.6	12 Jan 12 Jul	1286
1,550	Exch. 11pc 1991	97xd	12.31	18.9	25 Apr 25 Oct	1258
1,350	Treas. 8pc 1991	92½	12.31	4.5	10 Jun 10 Dec	1335
900	Treas 12¾pc 1992‡‡	101¼	11.78	15.6	22 Jul 22 Jan	1297
1,600	Treas 10pc 1992	96¼	11.85	17.7	21 Aug 21 Feb	1283
1,400	Treas. 8pc 1992‡‡	91⅞	11.84	6.9	13 Oct 13 Apr	1337
1,288	Treas 10½pc Cv 1992‡‡	97xd	11.69	2.10	7 Nov 7 May	1289
500	Treas. 3pc 1992	84½	9.93	5.5	11 Dec 11 Jun	1328
1,350	Exch. 12¼pc '92	101½	11.69	19.7	25 Feb 25 Aug	1265
1,757	Exch 13½pc 1992	104	11.55	31.8	22 Mar 22 Sep	1266
950	Treas 8¼pc 1993	91½	11.40	12.7	18 Aug 18 Feb	—
1,850	Treas 10pc 1993‡‡	96¼	11.27	8.9	15 Oct 15 Apr	1279
1,100	Treas 12½pc 1993‡‡	103	11.25	27.6	14 Jan 14 Jul	1296
600	Funding 6pc 1993‡‡	86	10.17	9.8	15 Mar 15 Sep	1276
1,250	Treas 13¾pc 1993‡‡	108xd	11.14	17.10	23 May 23 Nov	1304
1,050	Treas. 8½pc 1994	91¼	11.15	27.6	3 Aug 3 Feb	—
600	Treas 14½pc 1994‡‡	112	10.97	26.7	1 Sep 1 Mar	1307
1,100	Exch 13½pc 1994	108xd	11.11	20.9	27 Oct 27 Apr	1267
1,400	Treas. 10pc Ln. 1994‡‡	96	10.96	3.5	9 Dec 9 Jun	1284
1,550	Exch. 12½pc 1994	105	11.11	17.7	22 Feb 22 Aug	1263

Five to Fifteen Years

Amount £m	Stock	Price £	Red. Yld.	Last xd	Interest Due	City-line
1,600	Treas 9pc 1994‡‡	92¾xd	10.87	11.10	17 May 17 Nov	1345
2,350	Treas 12pc 1995	103	11.05	19.6	25 Jul 25 Jan	1294
229	Exch 3pc Gas 90–95	75½xd	8.66	25.9	1 Nov 1 May	1271
2,100	Exch. 10¼pc 1995	97	10.94	14.6	21 Jan 21 Jul	1254
1,000	Treas 12¾pc 1995‡‡	108xd	10.82	9.10	15 May 15 Nov	1298
900	Treas. 14pc '96	113	11.02	15.6	22 Jul 22 Jan	1305
750	Treas. 9pc 1992–96‡‡	92¼	10.66	9.8	15 Sep 15 Mar	1344
1,350	Treas 15¼pc 1996‡‡	124xd	10.85	27.9	3 Nov 3 May	1309
800	Exch 13¼pc 1996‡‡	111¼xd	10.83	9.10	15 Nov 15 May	1268
1,109	Conversion 10pc 1996	96¾xd	10.72	9.10	15 May 15 Nov	1240
1,500	Treas 13¼pc 1997‡‡	111¾	10.82	15.6	22 Jul 22 Jan	1302
3,100	Exch 10½pc 1997	98	10.73	17.7	21 Aug 21 Feb	1253
3,750	Treas 8¾pc 1997‡‡	90⅝	10.51	24.8	1 Mar 1 Sep	1341
1,000	Exch 15pc 1997	121¼xd	10.94	20.9	27 Apr 27 Oct	1269
2,850	Exch. 9¾pc 1998	95¼	10.61	12.6	19 Jul 19 Jan	1273
1,000	Treas 6¾pc 1995–98‡‡	80¾xd	10.15	25.9	1 Nov 1 May	1331
1,100	Treas. 15½pc '98‡‡	126	10.78	24.8	30 Mar 30 Sep	1308
2,500	Exch. 12pc 1998	107xd	10.72	16.10	20 May 20 Nov	1259
1,250	Treas 9½pc 1999‡‡	95	10.34	8.6	15 Jul 15 Jan	1347
2,900	Exch. 12¼pc 1999	109⅛	10.68	21.8	26 Sep 26 Mar	1264
1,252	Treas. 10½pc 1999	99xd	10.55	13.10	19 Nov 19 May	1288
1,548	Conversion 10¼pc 1999	98xd	10.53	16.10	22 May 22 Nov	1242
1,200	Treas. 8½pc Ln 2000‡‡	88	10.27	21.6	28 Jan 28 Jul	1338
1,554	Conversion 9pc 2000‡‡	91¾	10.30	28.7	3 Sep 3 Mar	1244
1,817	Treas. 13pc 2000	114⅝	10.67	27.6	14 Jan 14 Jul	1299
1,050	Treas 10pc 2001	97½	10.35	20.7	26 Aug 26 Feb	1280
1,250	Treas. 14pc '98–01	117xd	10.89	16.10	22 Nov 22 May	1306
802	Conversion 9¾pc 2001	96	10.33	4.7	10 Feb 10 Aug	1248
1,600	Exch. 12pc '99–02	106	10.75	15.6	22 Jul 22 Jan	1261
716	Conversion 10pc 2002	98¼	10.26	4.9	11 Oct 11 Apr	1241
1,450	Treas 9¾pc 2002	96¾	10.22	21.7	27 Feb 27 Aug	1349
1,300	Exch. 9pc 2002	91xd	10.16	13.10	19 May 19 Nov	1272
1,800	Treas. 13¾pc 2000–03	118	10.72	19.6	25 Jan 25 Jul	1303
1,000	Treas 10pc 2003	99½	10.09	2.8	8 Mar 8 Sep	1281
1,900	Treas. 11½pc 2001–04	106	10.51	14.8	19 Sep 19 Mar	1290
900	Treas. 10pc 2004	99xd	10.05	12.10	18 Nov 18 May	1282
443	Funding 3½pc '99–04	56¼	8.85	29.6	14 Jan 14 Jul	1274

Over Fifteen Years

BRITISH FUNDS—Contd

Amount £m	Stock	Price £	Red. Yld.	Last xd	Interest Due	City-line
1,362	Conversion 9½pc 2004	96xd	9.97	18.9	25 Apr 25 Oct	1246
1,881	Conversion 9½pc 2005	96	9.94	11.9	18 Oct 18 Apr	1247
1,050	Exch. 10½pc 2005	104½	9.93	14.8	20 Mar 20 Sep	1251
2,200	Treas. 12½pc 2003–05	117xd	10.13	16.10	21 May 21 Nov	1295
1,800	Treas. 8pc 2002–06‡‡	84¼	9.87	1.9	5 Apr 5 Oct	1334
702	Conversion 9¾pc 2006	99xd	9.87	9.10	15 May 15 Nov	1249
3,150	Treas. 11¾pc 2003–07	111½	10.13	15.6	22 Jul 22 Jan	1293
1,446	Treas 8½pc 2007‡‡	89¾	9.72	9.6	16 Jan 16 Jul	1339
1,250	Treas. 13½pc '04–08	125	10.07	21.8	26 Sep 26 Mar	1301
1,800	Treas. 9pc 2008‡‡	94	9.65	6.9	13 Apr 13 Oct	1343
1,000	Treas 8pc 2009	85	9.60	21.8	25 Mar 25 Sep	1336
369	Conv 9pc Ln 2011‡‡	94	9.56	29.6	12 Jan 12 Jul	1245
1,000	Treas. 5½pc 2008–12‡‡	63¾	9.37	4.8	10 Mar 10 Sep	1330
700	Treas. 7¾pc 2012–15‡‡	83½	9.51	19.6	26 Jul 26 Jan	1332
1,000	Exch. 12pc '13–'17	122½	9.58	8.5	12 Jun 12 Dec	1260

Undated

Amount £m	Stock	Price £	Red. Yld.	Last xd	Interest Due	City-line
359	Consols 4pc	41¼	—	26.6	1 Feb 1 Aug	1239
1,909	War Loan 3½pc‡‡	36⅝	—	25.4	1 Jun 1 Dec	1352
140	Conv. 3½pc '61 Aft.	62½	—	25.8	1 Apr 1 Oct	1243
56	Treas. 3pc '66 Aft.	32⅞	—	1.9	5 Apr 5 Oct	1324
276	Consols 2½pc	26¼	—	1.9	5 Ja Ap Jul O	1238
475	Treas. 2½pc	25⅞	—	25.8	1 Apr 1 Oct	1315

Index-Linked

Amount £m	Stock	Price £ (b)	Red. Yld. **	Last xd	Interest Due	City-line
650	Tr. 2pc '92‡‡(97.8)	109	4.31	17.8	23 Mar 23 Sep	1312
400	Do. 2 '94 (102.9)	102xd	3.80	10.10	16 Nov 16 May	—
1,000	Do. 2pc '96(67.9)	150¼	3.60	10.8	16 Mar 16 Sep	1313
900	Do 2½pc '01(78.3)	127	3.78	18.8	24 Mar 24 Sep	1316
600	Do. 2½pc '03(78.8)	124xd	3.82	16.10	20 Nov 20 May	1317
1,200	Do. 2pc '06(69.5)	127	3.78	12.6	19 Jan 19 Jul	1314
950	Do. 2½pc '09(78.8)	118	3.77	16.10	20 Nov 20 May	1318
1,350	Do. 2½pc '11(74.6)	123⅛	3.75	17.7	23 Feb 23 Aug	1319
1,100	Do. 2½pc '13(89.2)	102⅝	3.72	10.7	16 Feb 16 Aug	1320
1,700	Do. 2½pc '16(81.6)	111¼	3.67	19.6	26 Jan 26 Jul	1321
1,400	Do. 2½pc '20(83.0)	108¾	3.61	11.9	16 Oct 16 Apr	1322
900	Do. 2½pc '24‡‡(97.7)	91	3.56	12.6	17 Jan 17 Jul	1323

**Prospective real redemption rate on projected inflation of 5%. (b) Figures in parentheses show RPI base month for indexing, (ie 8 months prior to issue) and have been adjusted to reflect rebasing of RPI to 100 in January 1987. Conversion factor 3.945. RPI for February 1989:111.8 and for September1989:116.6

INT. BANK AND O'SEAS

Amount £m	Stock	Price £	Red. Yld.	Last xd	Interest Due	City-line
50	African Dv Bk 11¼ Ln 2010	101¼	10.96	1.12	4 Jan 4 Jun	—
100	Asian Dev Bk 10¼pcLn2009	97	10.54	28.3	24 Mar 24 Sep	—
100	Australia 13½pc 2010	120	10.92	23.12	28 Jan 28 Jul	—
100	Do. 11½pcLn2015	104	10.86	22.3	26 Apr 26 Oct	—
75	Euro Inv Bk 11pc Ln 2002	101	10.74	23.2	23 Mar 23 Sep	—
100	Do. 10¼pc2004	97	10.71	24.10	Apr Nov	—
75	Int-Am Dev Bk 12½pc 2003	110	10.93	7.12	8 Jan 8 Jul	—
175	Do. 9¾pcLn 2015	92¼	10.58	13.10	15 May 15 Nov	—
75	Mlysia 10¼pcLn 2009	93xd	11.66	23.12	31 Jan 31 Jul	—
50	Utd. Mexican States 16½pc 2008	115	14.20	24.1	1 Mar 1 Sep	—

CORPORATION LOANS

Amount £m	Stock	Price £	Red. Yld.	Last xd	Interest Due	City-line
32	Birmingham 13½pc 1989	100½xd	11.20	20.10	20 May 20 Nov	1838
45	Do. 11½pc 2012	103½xd	11.10	13.10	15 May 15 Nov	1837
40	GLC 6¾pc 1990–92	87½xd	13.10	17.7	15 Feb 15 Aug	2647
40	Leeds 13½pc 2006	118½	11.06	11.9	1 Apr 1 Oct	3146
5	Liverpool 3½pc Irred.	30xd	—	1.9	1 Ja Apr Ju Oc	3169
25	LCC 6¾pc '88–90	93½	13.90	14.7	10 Jan 10 Jul	3198
26	Do. 3pc '20 Aft.	28xd	—	1.8	1 Mar Je S D	3197
7	Manchester 11½pc 2007	102½xd	11.20	29.9	25 Apr 25 Oct	3275

COMMONWEALTH & AFRICAN LOANS

Amount £m	Stock	Price £	Red. Yld.	Last xd	Interest Due	City-line
14	NZ 7¼pc 1988–92	87½	12.40	1.12	1 Jan 1 Jul	—
—	S Rhod 2½pc Non-Asstd.	206	—	—	1 Apr 1 Oct	—
4	Do. 4½pc 87–92 Asstd	84½	9.33	14.7	7 Feb 7 Aug	—

LOANS

Building Societies

Amount £m	Stock	Price £	Red. Yld.	Last xd	Interest Due	City-line
20	N'wide Anglia 11⅝pc 6.11.89	99xd	15.98	9.10	30 Apr 6 Nov	—
20	Do. 12⅜pc 4.12.89	99	15.79	28.4	28 May 4 Dec	—
20	Do. 12⅜pc 2.1.90	99	15.56	30.5	2 Jan 28 Jun	—
20	Do. 12¾pc 29.1.90	99	15.40	23.6	29 Jan 23 Jly	—
—	Do. 12pc 26.2.90	98	15.34	21.7	26 Feb 20 Aug	—
—	Do. 12⅞pc 19.3.90	99	15.18	—	19 Mr 13 Sep	—
20	Do. 13⅛pc 23.4.90	99xd	15.06	18.9	23 Apr 17 Oct	—
20	Do. 13pc 14.5.90	99xd	15.01	9.10	14 May 8 Nov	—
—	Do. 13pc 4/6/90	99	14.96	—	4 Jun 30 Nov	—
—	Do. 14pc 2.7.90	99½	14.91	—	2 Jly 26 Dec	—
—	Do. 13⅝pc 23.7.90	99	14.89			—
20	Do. 13pc 13.8.90	98	14.84			—
60	Do. 3⅞pcIL Ln 2021	106xd	4.30	22.6	30 Jan 31 Jul	3465

Public Board and Ind.

Amount £m	Stock	Price £	Red. Yld.	Last xd	Interest Due	City-line
25	Met. Wtr. 3pc 'B'	46xd	10.62	1.8	1 Mar 1 Sep	3361

FOREIGN BONDS & RAILS

Amount £m	Stock	Price £	Div % Gross	Yld	Last xd	Interest Paid	City-line
7	Greek 7pc Ass.	48	3.50	f8.75	1.11	1 May 1 Nov	2763
4	Do. 6pc 28 Stb. Ass.	48xd	3	17.50	1.2	1 Feb 1 Aug	2762
—	Do 4pc Mixed Ass.	40xd	2	f5.00	3.4	1 Apr 1 Oct	2761
1	Hung. '24 Ass.	80	2.75	f3.57	3.5	1 May	2935
40	Hydro Quebec 15pc 2011	129	15.00	11.31	27.10	31 May 30 Nov	—
30	Iceland 14½pc Ln 2016	121xd	14.50	11.85	29.12	31 Jan 31 Jul	—
30	Ireland 9¾pc '91–96	91½xd	9.75	11.60	21.8	1 Mar 1 Sep	3002

AMERICANS

Market Cap. £m	Stock	Price £	Div Gross	Y'ld Gr's	Last xd	Dividends Paid	City-line
9,614.1	Abbott Laboratories‡	42¼xd	$1.40	2.1	11.7	Fb My Ag Nv	1503
240.6	♦Allegheny & W 1c.	463p	30c	4.1	—	—	—
1,826.5	Amax $1	14xd	80c	3.4	7.8	Mr Jn Se De	1581
386.7	Ambase Corp $1	9xd	20c	1.3	24.2	Jan Mar Jn Dc	2915
849.4	Amdahl 5c	809pxd	h10c	0.8	31.1	Nv Mr Jn Ag	—
2,903.3	Amer. Cyanamid $5	32	$1.35	2.7	27.2	Mr Je Se De	—
11,679.5	Amer. Express 60c	23xd	84c	2.3	3.7	Fb My Ag Nv	1594
1,209.2	Amer. Medical Int. $1	14⅞	♦72c	3.1	9.1	Fb My Au Nv	—
28,365.1	American T. & T. $1	27	$1.20	2.8	27.5	Fb My Ag Nv	1597
17,073.5	Ameritech $1	40	h$2.92	4.6	28.3	Fb My Ag Nv	—
—	♦Asiamerica Equity‡	534p	—	—	—	—	—
3,622.2	BankAmerica $1⅛	20xd	60c	1.9	17.5	Fe My Au No	1744
2,540.6	Bankers N.Y. $1	32½xd	$2.08	4.1	31.3	Ap Jly Oc Jan	1745
12,529.4	Bell Atlantic $1	63¼	$4.08	4.1	27.6	Fe My Au No	—
16,322.5	BellSouth Corp	33½	$2.52	4.8	6.7	Fe My Au No	—
850.3	♦Bethlehem Steel $8	11xd	$1.00	5.5	6.2	Mar Jun S D	1821
—	♦Bio-Rad Labs. A	18⅞	—	—	—	—	—
610.5	Bowater Inc.	16⅝	$1.12	4.3	6.6	Oc Ja Ap Jy	1884
858.4	Brunswick 75c	9⅝xd	44c	2.9	20.7	F My Au N	1989
3,353.5	CPC Intnl. 25c	40	$1.80	2.8	25.9	Jan Ap Jly O	2263
140.2	California Engy	770p	—	—	—	—	—
3,729.4	Campbell Soup 15c.	28½xd	92c	2.0	3.7	Oc Ja Ap Jy	—
2,050.9	Chase Manhattan $12½	25½xd	$2.36	5.9	27.7	Fb My Ag Nv	2109
2,538.1	Chem. Banking Corpn.	22¼	$2.72	7.6	12.6	Ap Jy Oc Ja	—
3,245.1	Chrysler $6¼	14½xd	$1.20	5.2	14.6	Mar Jun S D	2135
6,379.8	Citicorp $1	20xd	$1.62	5.1	25.4	My Au N F	2141
2,780.1	Colgate-Palmolive $1	40xd	s$1.48	2.3	20.7	F My Au N	2184
1,578.9	Cont'l Bank Corp $4	15⅝	80c	3.2	31.5	Oc Mr Je Sp	—
—	♦Corporate Data Scnce	334p	—	—	—	—	—
991.3	Dana Corp. $1	22¼xd	$1.60	4.6	29.8	Mr Ju Se De	2306
251.4	Data General	911p	—	—	—	—	—
6,061.7	Dun & Bradstreet $1	32⅝	$2.00	3.9	13.2	Mr Jn Sp Dc	—
1,619.2	Eaton Corpn. 50c	37¾	b$2.00	3.3	2.8	F My Au N	2410
553.0	Echlin Inc	9⅜	70c	4.8	30.6	JanAprJulOct	—
2,728.2	FPL Group 1c	20xd	$2.28	7.0	23.11	MrJnSepDec	—
1,772.7	Fluor Corp 62½pc	21	16c	0.5	—	J A J O	2609
16,514.2	Ford Motor $1	31xd	$3.00	6.1	28.7	Mar Jun S D	2615
32,494.9	Gen. Elect. 63c	35½	$1.64	2.9	7.6	Ja Ap Je Oc	2675
—	♦General Host Corp $1	479p	30c	4.0	13.12	—	—

Continued on next page

	Bid Price	Offer Price	Yield Gross	City-line
Hill Samuel Investment Services Intl (z)				
Bank von Ernst & Cie AG				
Crossbow (Far East)	SFr18.40	19.99	—	45256
CSF (Int. Man)	SFr38.60	41.00	—	45257
ITF Fd (Technology)	$20.09	21.25	—	45262
O'seas Fd (N Amer)	$49.77	52.39	—	45265
Huntington World Investors Fds Ltd				
Managed Currency	$14.15	14.33	7.71	45304
The New Zealand Fund				
Manager: Leadenhall Offshore Ltd				
The NZ Fund	$8.35	8.93	—	45556
Newport International Management				
Npt. Intl. Securities	$37.91		—	45555
Npt. Intl. Inc. Fd	$19.29		—	45556
Npt. Pacific	$25.68		—	45557
Skandifond				
Skandinaviska Enskilda Banken				
Equity Int. Acc.	$11.58	12.17	—	45798
Equity Int. Inc.	$10.82	11.370	—	45797
Equity Global	$1.08	1.15	—	47472
Far East	$1.83	1.93	—	45801
Equity Gold	$0.88	0.93	—	45803
Equity Japan Acc	Y139	147	—	46467
Equity Nordic	$1.20	1.27	—	47473
Equity UK	£1.080	1.14	—	47474

Allied Trust Bank Ltd
97-101 Cannon St, London, EC4N 5AD 01-629 6802

OMNA (£2,001 +)	14.50	11.35	15.50	—
HICA (£2,001 +)	13.90	10.88	14.82	—

Bank of Ireland High Interest Cheque Acc
36 Queen St, EC4R 1BN. 01-625 7000

2,000-9,999	13.738	10.750	14.922	—
£10,000+	14.058	11.000	15.283	—

Bank of Scotland
38 Threadneedle St, EC2P 2EH. 01 601 6746

Money Mkt Cheque Acc	13.60	10.64	14.90	—

Money Market Trust Funds

Money Market Bank Accounts

LONDON SHARE SERVICE

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AMERICANS – Contd

Market Cap. £m	Stock	Price £	Div Gross	Y'ld Gr's	Last xd	Dividends Paid	City-line
[illegible]	Gillette $1	28⅞	96c	2.1	27.1	Mar Jun S D	2695
[illegible]	1st American Bank Bk $1	635p	20c	2.0	28.10	Fb My Ag Nv	–
[illegible]	Greyhound $1½	19½	$1.32	4.2	30.5	Ja Ap Jy Oc	2778
[illegible]	Hasbro Inc 50c	13¼	16c	0.7	1.8	Ja No Au My	–
[illegible]	Honeywell $1½	51	$2.10	2.6	22.8	Mar Jun S D	2919
[illegible]	Houston Inds.	21½	$2.96	8.7	10.11	Mr Jn Se De	–
[illegible]	IBM Corpn $1¼	65	$4.84	4.7	5.5	Mar Jun S D	2986
[illegible]	[illegible]	50p	–	–	–	–	2961
[illegible]	Ingersoll-Rand $2	28⅞	$1.20	2.6	16.5	Mar Jun S D	2979
[illegible]	Lockheed Crpn. $1	28½	$1.80	4.0	15.2	Mar Jun S D	–
[illegible]	Lone Star Inds $1	18	$1.90	6.7	30.8	May Se N Mar	3216
[illegible]	Louisiana Land 15c	24¼	$1.00	2.6	29.8	Mar Jun S D	3222
[illegible]	Lowe's 50c	18⅞	48c	1.6	11.7	Jan Ap Jy Oc	–
[illegible]	Manuf. Hanover $1	25⅝	$3.28	8.1	26.6	Jan Ap Jly Oc	3279
[illegible]	Merrill Lynch $1	18⅛	$1.00	3.5	31.10	Feb My Ag N	3351
[illegible]	Molex Inc	2409p	3.2c	–	–	–	3397
[illegible]	Morgan (JP) $2½	27	$1.66	3.9	21.12	Jan Ap Jly O	3418
[illegible]	Morris (Philip)	27⅞	$1.13	2.6	12.10	–	5161
[illegible]	NYNEX $1	50¼	$4.36	5.4	27.6	F May Au N	4740
[illegible]	N'wide Legal Serv.	27p	–	–	–	–	5121
[illegible]	PHH Corp.	22⅞	$1.12	3.1	4.4	Ja Ap Jy Oct	–
–	Pacific Agr.	195p	–	–	–	–	–
[illegible]	Pacificorp $3¼	25⅞	$2.76	6.5	18.7	Feb My Ag Nv	–
[illegible]	Pacific Telesis 10c	28⅝	$1.88	4.2	12.85	Fe My Au No	–
[illegible]	Pall Corp. 25c	21¼	48c	1.4	24.1	Fe My Au No	–
[illegible]	Pennzoil 83 1/3c	49⅝	$3.00	3.8	29.8	Mar Jun S D	3630
[illegible]	Quaker Oats $5	39⅞	$1.20	1.9	20.6	Jly Oc Jan Apr	3738
[illegible]	Rep NY Corpn $5	29⅞	$1.28	2.7	12.9	Jan Apr Jly O	3814
[illegible]	Rockwell Intl. $1	14⅞	78c	3.3	9.8	Mr Jn Se De	3847
[illegible]	Sears, Roebuck 75c	25⅛	$2.00	5.0	23.8	Jan Apr Jly Oc	5191

CANADIANS

BANKS, HP & LEASING

Hire Purchase, Leasing, etc.

BEERS, WINES & SPIRITS

BUILDING, TIMBER, ROADS

BUILDING, TIMBER, ROADS – Contd

CHEMICALS, PLASTICS

DRAPERY AND STORES

DRAPERY AND STORES – Contd

ELECTRICALS

ENGINEERING

ENGINEERING – Contd

FOOD, GROCERIES, ETC

HOTELS AND CATERERS

INDUSTRIALS (Miscel.)

INDUSTRIALS (Miscel.) – Contd

Market Cap. £m	Stock	Price	Div Net	Y'ld Gr's	Last xd	Dividends Paid	City-line
14.3	Aukett Assocs. 5p	118	W3.0	3.4	3.7	Mar Aug	4796
98.5	Avon Rubber £1	475	tq14.0	3.9	5.6	July Jan.	1715
385.0	BBA Group	178	6.45	5.1	4.9	Nov May	1778
87.6	Do. 6.7pc Cm Rd Cv Pf.	101	6¾%	8.9	8.5	Nov May	5114
[illegible]	BET	270	11.5	5.7	23.6	Feb Aug	1820

INDUSTRIALS (Miscel.) – Contd.

Market Cap. £m	Stock	Price	Div Net	Y'ld Gr's	Last xd	Dividends Paid	City-line
18.2	Minty	198	a0.29	0.2	24.7	August	3395
7.01	MITIE Group 50p	198	–	–	6.78	–	2889
11.5	Monks & Crane 10p	64	3.83	8.0	19.6	Feb Aug	3402
381.9	Morgan Crucible	281	†10.9	5.3	28.7	Jan. July	3416
[illegible]	[illegible]	119	7.5	8.4	28.7	Jan Jly	4673
35.7	Do. 7.5pc Cnv Red Prf.	323	5.5	2.3	31.7	Apr Oct	4819

INSURANCES

LONDON SHARE SERVICE

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LEISURE

MOTORS, AIRCRAFT TRADES

Commercial Vehicles

Components

Garages and Distributors

NEWSPAPERS, PUBLISHERS

PAPER, PRINTING, ADVERTISING

PAPER, PRINTING, ADVERTISING — Contd

PROPERTY

SHOES AND LEATHER

SOUTH AFRICANS

TEXTILES

TEXTILES—Contd

TOBACCOS

TRANSPORT

TRUSTS, FINANCE, LAND

Investment Trusts

TRUSTS, FINANCE, LAND—Contd

Finance, Land, etc

OIL AND GAS

OIL AND GAS—Contd

OVERSEAS TRADERS

PLANTATIONS

Rubbers, Palm Oil

Teas

MINES

Central Rand

Eastern Rand

Far West Rand

O.F.S.

Diamond and Platinum

Central African

Finance

Australians

Miscellaneous

Tins

MINES—Contd

THIRD MARKET

3.45	Staks Hldgs. 5p..... y	7½xr	–	–	–	–	4625
2.49	Swanyard Studios 1p y	1¾	–	–	–	–	4666
0.37	Systems Connections 2½p y	3	–	–	–	–	5152
10.5	Tavern Leis. 20p... y	41	–	–	–	–	4867
8.85	Tomorrows Leisure 20p y	79	–	–	–	–	4246

For Tullow Oil see Oils & Gas

2.62	UPL Group 10p..... y	65	2.75	5.6	22.5	Dec. July	4362
6.77	Unit Group.......... y	131	5.0	5.1	3.7	Jan Aug	4357
7.21	Video Magic Leis. 1p y	82	W2.0	3.3	–	Jan July	5071
5.94	Vista Ents 5p....... y	6½	–	–	–	–	3994
13.4	Vizcaya Hldgs 5p.. y	25	–	–	–	–	4193
62.1	Whitegate Leisure 20p y	40½	–	–	–	–	1105
1.94	Do. Wrnts......... y	29	–	–	–	–	1116
26.8	Wilton Group 1p... y	6	–	–	–	–	3628

NOTES

Stock Exchange dealing classifications are indicated to the right of security names: α Alpha, β Beta, γ Gamma.

Unless otherwise indicated, prices and net dividends are in pence and denominations are 25p. Yields are based on middle prices, are gross, adjusted to ACT of 25 per cent and allow for value of declared distribution and rights.

● "Tap Stock"
† Interim since increased or resumed
‡ Interim since reduced, passed or deferred
‡‡ Tax-free to non-residents on application
♥ Not officially UK listed; dealings permitted under rule 535(4)(a)
✱ USM; not listed on Stock Exchange and company not subjected to same degree of regulation as listed securities.
‡‡ Not officially listed.
¥ Price at time of suspension
¶ Indicated dividend after pending scrip and/or rights issue.
♣ Merger bid or reorganisation in progress
♣ Not comparable
♠ Same interim; reduced final and/or reduced earnings indicated
§ Forecast dividend.

‡ Cover allows for conversion of shares not now ranking for dividends or ranking only for restricted dividend.
☆ Cover does not allow for shares which may also rank for dividend at a future date.
‖ No par value

B.Fr. Belgian Francs. Fr. French Francs ■■ Yield based on assumption Treasury Bill Rate stays unchanged until maturity of stock. a Annualised dividend. b Figures based on prospectus or other offer estimate. c Cents. d Dividend rate paid or payable on part of capital. e Redemption yield. f Flat yield. g Assumed dividend and yield. h Assumed dividend and yield after scrip issue. j Payment from capital sources. k Kenya. m Interim higher than previous total. n Rights issue pending s Dividend and yield exclude a special payment. t Indicated dividend. u Forecast, or estimated annualised dividend rate. v Subject to local tax. y Dividend and yield based on merger terms. z Dividend and yield include a special payment. A Net dividend and yield. B Preference dividend passed or deferred. C Canadian. E Minimum tender price. F Dividend and yield based on prospectus or other official estimates for 1988-89. G Assumed dividend and yield after pending scrip and/or rights issue. H Dividend and yield based on prospectus or other official estimates for 1989. K Dividend and yield based on prospectus or other official estimates for 1987-88. L Estimated annualised dividend. M Dividend and yield based on prospectus or other official estimates for 1988. N Dividend and yield based on prospectus or other official estimates for 1989-90. P Figures based on prospectus or other official estimates for 1987. Q Gross. R Forecast annualised dividend. T Figures assumed. W Pro forma figures. Z Dividend total to date.

Abbreviations: xd ex dividend; xc ex scrip issue; xr ex rights; xa ex all; xi ex capital distribution.

REGIONAL & IRISH STOCKS

The following is a selection of Regional and Irish stocks, the latter being quoted in Irish currency.

Albany Inv 20p.... y	88xd	......
Craig & Rose £1.. y	830	......
Finlay Pkg. 5p.... y	67	......
Holt (Jos) 25p..... y	1343xd	......

IRISH

Cap. 8½% Ln. 1991...	£97½	......
9pc Cap Ln. 1996..	£98¾	......
Fin. 13% 97/02...	£119	......
Arnotts..............	410	......
Carrol (P.J.)....... y	140	-2
Hall (R. & H.).......	170	......
Helton Hldgs........ y	90	+2
IRG...................	233	+8
United Drug.........	135	......

TRADITIONAL OPTIONS

3-month call rates

Industrials	p
Allied-Lyons	38
Amstrad	11
BAT	88
BOC Grp.	42
BSR	6½
BTR	32
Barclays	42
Blue Circle	24
Boots	25
Bowaters	44
Brit Aerospace	52
British Steel	7½
Brit. Telecom	21
Burton Ord.	18
Cadburys	46
Charter Cons.	48
Comm Union	32
Courtaulds	38
FKI	14
FNFC	22
Gen Accident	85
GEC	20
Glaxo	110
Grand Met	48
GUS 'A'	90
Guardian	18
GKN	34
Hanson	16
Hawker Sidd.	60
ICI	100
Jaguar	28
Ladbroke	28
Legal & Gen.	26
Lex Service	33
Lloyds Bank	29
Lucas Inds.	58
Marks & Spencer	15
Midland Bk.	30
Morgan Grenfell	24
Nat West Bk.	25
P & O Dfd.	55
Plessey	22
Polly Peck	26
Racal Elect.	20
RHM	42
Rank Org Ord.	80
Reed Intnl.	34
STC	32
Sears	18
Smithkline Bchm. A	50
TI	38
TSB	18
Tesco	14
Thorn EMI	58
Trust Houses	24
T&N	18
Unilever	46
Vickers	18
Wellcome	42

Property

Brit Land	32
Land Securities	52
MEPC	50
Randsworth	28

Oils

Brit Petroleum	21
Burmah Oil	50
Calor	35
Charterhall	2½
Premier	9
Shell	32
Ultramar	26

Mines

Cons Gold	150
Lonrho	38
RTZ	48

This service is available to every Company dealt in on Stock Exchanges throughout the United Kingdom for a fee of £985 per annum for each security.

CURRENCIES, MONEY AND CAPITAL MARKETS

POUND SPOT- FORWARD AGAINST THE POUND

Oct.20	Day's spread	Close	One month	% p.a.	Three months	% p.a.
US	1.5845 - 1.5990	1.5880 - 1.5890	0.86-0.84cpm	6.42	2.47-2.44pm	6.18
Canada	1.8600 - 1.8740	1.8630 - 1.8640	0.48-0.40cpm	2.83	1.34-1.23pm	2.76
Netherlands	3.31 - 3.33	3.32 - 3.33	2¼-1⅞cpm	7.22	5⅝-5¼pm	6.62
Belgium	61.65 - 62.05	61.80 - 61.90	30-25cpm	5.34	84-77pm	5.21
Denmark	11.43¾ - 11.51	11.50 - 11.51	1⅝-1⅛orepm	1.43	6⅝-6¼pm	2.22
Ireland	1.1010 - 1.1095	1.1050 - 1.1060	0.40-0.35pm	4.07	1.10-1.00pm	3.80
W. Germany	2.93¾ - 2.95¼	2.94¼ - 2.94¾	1⅞-1¾pfpm	7.39	5¼-4⅞pm	6.79
Portugal	250.40 - 253.00	252.00 - 253.00	43-23cpm	1.57	11-64dis	-0.59
Spain	186.80 - 188.60	187.70 - 188.00	20-11cpm	0.99	42-39pm	0.86
Italy	2161¼ - 2172½	2166¼ - 2167¼	5-3lirepm	2.22	13-11pm	2.22
Norway	10.97¼ - 11.02	11.00¾ - 11.01¾	4-3⅝orepm	4.15	10¼-9⅝pm	3.54
France	9.98 - 10.01¾	10.00¾ - 10.01¾	4½-4⅛cpm	5.17	12¼-11¾pm	4.77
Sweden	10.21 - 10.25½	10.23 - 10.24	2⅞-2⅝orepm	3.22	7⅞-7⅛pm	2.98
Japan	225 - 226½	225½ - 226½	1¾-1⅝ypm	8.30	4⅞-4¾pm	8.52
Austria	20.65 - 20.77	20.71 - 20.74	12⅞-11⅛gropm	6.80	33⅝-30¼pm	6.82
Switzerland	2.57¼ - 2.60	2.57¾ - 2.58¾	1¾-1⅝cpm	7.84	4⅝-4⅛pm	7.07
ECU	1.4350 - 1.4410	1.4350 - 1.4360	0.57-0.54cpm	4.64	1.64-1.59pm	4.50

Commercial rates taken towards the end of London trading. Belgian rate is convertible francs. Financial franc 62.05-62.15 Six-month forward dollar 4.71-4.66cpm 12 months 8.51-8.41cpm

DOLLAR SPOT- FORWARD AGAINST THE DOLLAR

Commercial rates taken towards the end of London trading. † UK and Ireland are quoted in US currency. Forward premiums and discounts apply to the US dollar and not to the individual currency. Belgian rate is for convertible francs. Financial franc 39.05-39.15.

MONEY MARKETS

Bank squeezes the sterling speculator

MONEY MARKETS were heavily influenced by volatility in equity trading last week, but the UK authorities took a much more cautious view than during the October 1987 share crash. At that time liquidity was pumped into the banking system and interest rates fell sharply.

Equity markets rallied last week, but it was quite clear that even if this had not been the case there would have been no similar credit easing operation. The situation on share prices may have made a rise to 16 per cent in bank base rates less likely, but it has not brought a cut any nearer.

UK clearing bank base lending rate 15 per cent from October 5

The Federal Reserve took a similarly circumspect view in its operations on the New York *money market*. The Fed made sure the banking system had enough liquidity to restore calm to the financial markets, but action to drain funds on Thursday appeared to indicate that a further easing of credit policy was not imminent.

As calm returned to equity trading, the Bank of England continued to pursue its restrictive policy as far as the very short end of the London money market is concerned. Overnight money hovered around the 15 per cent base rate level, as the UK authorities tended to provide insufficient assistance to take out day-to-day credit shortages. Keeping the short end of the market tight makes it expensive for speculators to run short positions against sterling on borrowed money.

Tomorrow's figures on the UK currency account for September may determine how tight the authorities need to keep the market this week, but if the deficit is much larger than the widely forecast £1.6bn the credit situation will not improve.

£ IN NEW YORK

Oct.20	Close	Previous Close
£ Spot	1.5885-1.5895	1.5950-1.5960
1 month	0.85-0.84pm	0.89-0.86pm
3 months	2.47-2.45pm	2.46-2.41pm
12 months	8.60-8.50pm	8.45-8.30pm

Forward premiums and discounts apply to the US dollar

STERLING INDEX

	Oct.20	Previous
8.30 am	89.5	89.7
9.00 am	89.3	89.6
10.00 am	89.4	89.7
11.00 am	89.4	89.7
Noon	89.4	89.8
1.00 pm	89.4	89.7
2.00 pm	89.5	89.7
3.00 pm	89.5	89.7
4.00 pm	89.4	89.6

CURRENCY RATES

Oct.20	Bank rate %	Special° Drawing Rights	European † Currency Unit
Sterling ‡	-	1.25216	1.43667
U.S Dollar	7	1.28194	1.10547
Canadian $	12.46	1.50513	1.29837
Austrian Sch.	6½	16.6191	14.4595
Belgian Franc	10¼	49.5630	43.1602
Danish Krone	10½	9.19151	8.00304
Deutsche Mark	6.00	2.35980	2.05341
Neth.Guilder	7.00	2.66299	2.31872
French Franc	10¼	8.00892	6.97550
Italian Lira	13½	1737.83	1511.06
Japanese Yen	3¾	181.330	157.308
Norway Krone	8	8.84282	7.66089
Spanish Peseta	-	150.525	130.965
Swedish Krona	9½	8.22557	7.12474
Swiss Franc	6.00	2.06328	1.79915
Greek Drach.	20½	211.136	183.773
Irish Punt	-	0.887406	0.771221

‡ Sterling quoted in terms of SDR and ECU per £.
† European Commission Calculations.
° All SDR rates are for Oct.19

CURRENCY MOVEMENTS

Oct.20	Bank of England Index	Morgan°° Guaranty Changes %
Sterling	89.4	-21.4
U.S Dollar	69.8	-8.4
Canadian Dollar	104.9	+1.5
Austrian Schilling	107.8	+10.7
Belgian Franc	107.1	-5.3
Danish Krone	105.1	0.2
Deutsche Mark	115.0	+22.2
Swiss Franc	107.3	+16.0
Guilder	111.7	+14.4
French Franc	100.8	-14.3
Lira	98.7	-19.5
Yen	137.1	+67.5

Morgan Guaranty changes: average 1980-1982=100. Bank of England Index (Base Average 1985=100) °°Rates are for Oct.19.

OTHER CURRENCIES

Oct.20	£	$
Argentina	1032.20 - 1040.45	650.00 - 655.00
Australia	2.0555 - 2.0580	1.2940 - 1.2950
Brazil	7.1585 - 7.2090	4.5080 - 4.5380
Finland	6.7570 - 6.7770	4.2590 - 4.2610
Greece	260.85 - 265.35	163.85 - 166.45
Hong Kong	12.3985 - 12.4110	7.8085 - 7.8105
Iran	116.90°	71.20°
Korea(Sth)	1062.85 - 1079.95	668.70 - 673.90
Kuwait	0.47570 - 0.47760	0.29750 - 0.29850
Luxembourg	61.80 - 61.90	38.90 - 39.00
Malaysia	4.2730 - 4.2835	2.6900 - 2.6920
Mexico	4144.95 - 4162.15	2610.00 - 2620.00
N. Zealand	2.6940 - 2.7000	1.6970 - 1.7000
Saudi Ar.	5.9965 - 6.0060	3.7500 - 3.7510
Singapore	3.1110 - 3.1175	1.9570 - 1.9590
S. Af (Cm)	4.2065 - 4.2175	2.6575 - 2.6605
S. Af (Fn)	6.1690 - 6.2915	3.8835 - 3.9605
Taiwan	40.75 - 40.85	25.65 - 25.70
U.A.E.	5.8715 - 5.8770	3.6720 - 3.6730

°Selling rate

POUND-$ (FOREIGN EXCHANGE)

Spot	1-mth.	3-mth.	6-mth.	12-mth.
1.5885	1.5800	1.5640	1.5417	1.5039

IMM-STERLING $s per £

	Close	High	Low	Prev.
Dec	1.5734	1.5764	1.5696	1.5802
Mar	1.5504	1.5534	1.5460	1.5572
Jun	1.5286	-	1.5250	1.5354

GRANVILLE

SPONSORED SECURITIES

Capitalisation £000's	Company	Price	Change on week	Gross div (p)	Yield %	P/E
7958	Ass. Brit. Ind. Ord	335	-7	10.3	3.1	9.0
725	Armitage and Rhodes	29	-1			
111794	Bardon Group (SE)	163	-12	4.3	2.6	15.9
18150	Bardon Group Cv. Pref. (SE)	104xd	-6	6.7	6.4	-
4839	Bray Technologies	80	-5	5.9	7.4	7.1
	Bremhill Conv Pref	105	0	11.0	10.5	-
	Bremhill 8¼ New C.C.R.P	104	0	11.0	10.6	-
1094	CCL Group Ordinary	288	0	14.7	5.1	3.6
2125	CCL Group 11% Conv Pref	170	0	14.7	8.6	-
16740	*Carbo Plc (SE)*	*210*	*-10*	7.6	3.6	*12.4*
770	Carbo 7.5% Pref (SE)	110	0	10.3	9.4	-
-	Magnet Gp Non Voting A Cnv*	1.5	-1.25	-	-	-
-	Magnet Gp Non Voting B Cnv*	0.875	-0.25	-	-	-
9956	Isis Group	125	-3	8.0	6.4	7.1
24048	Jackson Group (SE)	112	-4	3.6	3.2	13.0
23003	Multihouse N.V.(AmstSE)	295	-25	-	-	-
1591	*Robert Jenkins*	156	-2	10.0	6.4	5.7
18000	Scruttons	375xd	-2	18.7	4.0	10.0
9242	Torday & Carlisle	299	-1	9.3	3.1	10.4
	Torday & Carlisle Conv Pref	110	0	10.7	9.7	-
3700	Trevian Holdings (USM)	86	-11	2.7	3.2	9.2
-	Unistrut Europe Conv Pref	150xd	0	9.3	6.2	-
6023	Veterinary Drug Co. Ltd	365	-12	22.0	6.0	9.4
7325	W. S. Yeates	327	-4	16.2	5.0	27.3

Securities designated (SE) and (USM) are dealt in subject to the rules and regulations of The ISE. Other securities listed above are dealt in subject to the rules of TSA
These securities are dealt in strictly on a matched bargain basis. Neither Granville & Co. Limited nor Granville Davies Limited are market makers in these securities.
* These securities are dealt on a restricted basis. Further details available

EURO-CURRENCY INTEREST RATES

EXCHANGE CROSS RATES

FT LONDON INTERBANK FIXING

(11.00 a.m. Oct.20) 3 months US dollars		6 months US Dollars	
bid 8 7/16	offer 8 9/16	bid 8 7/16	offer 8 9/16

The fixing rates are the arithmetic means rounded to the nearest one-sixteenth, of the bid and offered rates for $10m quoted by the market to five reference banks at 11.00 a.m. each working day. The banks are National Westminster Bank, Bank of Tokyo, Deutsche Bank, Banque National de Paris and Morgan Guaranty Trust.

MONEY RATES

NEW YORK

4pm

		Treasury Bills and Bonds			
Prime rate	10½	One month	7.32	Three year	7.98
Broker loan rate	10	Two month	8.02	Four year	7.96
Fed.funds	8 11/16	Three month	7.82	Five year	7.94
Fed.funds at intervention	8 13/16	Six month	8.00	Seven year	7.99
		One year	7.90	10-year	7.99
		Two year	7.93	30-year	7.99

Oct.20	Overnight	One Month	Two Months	Three Months	Six Months	Lombard Intervention
Frankfurt	7.85-7.95	7.95-8.10	7.90-8.05	8.00-8.15	7.95-8.15	8.00
Paris	9 11/16-9 13/16	9⅞-10	9⅞-10	9 15/16-10 1/16	9 15/16-10 1/16	9.50
Zurich	6⅛-6⅝	7⅛-7⅝	-	7⅛-7¼	-	-
Amsterdam	7.75-7.87	8.05-8.12	-	8.05-8.12	-	-
Tokyo	6⅛-6 3/16	6 7/16-6 9/16	-	6 9/16-6 11/16	-	-
Milan	12¼-12⅝	12½-13	-	12⅝-13⅛	-	-
Brussels	9.65	9⅝-9¾	-	9⅝-9¾	-	-
Dublin	10⅝-10⅞	10⅝-10⅞	10⅞-11⅛	11⅛-11¼	11⅛-11½	-

LONDON MONEY RATES

Oct. 20	Overnight	7 days notice	One Month	Three Months	Six Months	One Year
Interbank Offer	16	15	15⅛	15⅛	14 15/16	14¾
Interbank Bid	14¼	14⅞	15	15	14 13/16	14⅝
Sterling CDs.	-	-	15 1/32	15	14 13/16	14 7/16
Local Authority Deps.	15	14⅞	15	15	14¾	14½
Local Authority Bonds	-	-	-	-	-	-
Discount Mkt Deps.	16	14⅞	14⅞	14⅞	-	-
Company Deposits	-	-	15 1/16	15 1/16	14⅞	14 11/16
Finance House Deposits	-	-	15⅛	15⅛	14 13/16	14⅝
Treasury Bills (Buy)	-	-	14 13/16	14 13/16	-	-
Bank Bills (Buy)	-	-	14 15/16	14½	13 15/16	-
Fine Trade Bills (Buy)	-	-	15⅜	15⅛	14⅞	-
Dollar CDs.	-	-	8.62	8.60	8.45	8.43
SDR Linked Dep. Offer	-	-	8⅝	8¾	8¾	8¾
SDR Linked Dep. Bid	-	-	8⅜	8⅜	8½	8½
ECU Linked Dep. Offer	-	-	10 7/16	10 7/16	10⅜	10⅜
ECU Linked Dep. Bid	-	-	10 5/16	10 5/16	10¼	10 5/16

Treasury Bills (sell); one-month 14 13/16 per cent; three months 14 13/16 per cent; Bank Bills (sell); one-month 14 15/16 per cent; *three months 14¾ per cent*; Treasury Bills; Average tender rate of discount 14.4398 p.c. ECGD Fixed Rate Sterling Export Finance. Make up day September 29, 1989. Agreed rates for period October 25,1989 to November 25, 1989, Scheme I: 14.82 p.c., Schemes II & III: 15.27 p.c. Reference rate for period Sept.1,1989 to Sept.29, 1989, Scheme IV&V: 14.018 p.c. Local Authority and Finance Houses seven days' notice, others seven days' fixed. Finance Houses Base Rate 14 from October 1, 1989: Bank Deposit Rates for sums at seven days notice 4 per cent. Certificates of Tax Deposit (Series 6); Deposit £100,000 and over held under one month 10½ per cent; one-three months 12 per cent; three-six months 12 per cent; six-nine months 12 per cent; nine-twelve months 12 per cent; Under £100,000 10½ per cent from May 25,1989, *Deposits withdrawn for cash 5 per cent.*

BANK OF ENGLAND TREASURY BILL TENDER

	Oct.20	Oct.13		Oct.20	Oct.13
Bills on offer	£500m	£500m	Top accepted rate of discount	14.4596%	14.6201%

WEEKLY CHANGE IN WORLD INTEREST RATES

CHICAGO

FT-ACTUARIES WORLD INDICES

Jointly compiled by The Financial Times Limited, Goldman, Sachs & Co., and County NatWest/Wood Mackenzie in conjunction with the Institute of Actuaries and the Faculty of Actuaries

NATIONAL AND REGIONAL MARKETS — Figures in parentheses show number of stocks per grouping	FRIDAY OCTOBER 20 1989 US Dollar Index	% change since Dec.30 '88	Pound Sterling Index	Local Currency Index	% change local currency since Dec.30 '88	Gross Div. Yield	THURSDAY OCTOBER 19 1989 US Dollar Index	Pound Sterling Index	Local Currency Index	DOLLAR INDEX 1989 High	1989 Low	Year ago (approx)
Australia (85)	149.45	+3.4	139.49	128.68	+14.3	5.13	148.75	138.36	127.23	160.41	128.28	149.46
Austria (19)	162.57	+69.5	151.73	156.87	+77.0	1.55	163.64	152.21	157.30	172.22	92.84	95.32
Belgium (63)	142.52	+5.5	133.02	137.43	+10.4	4.02	141.94	132.02	136.69	144.49	125.58	128.46
Canada (122)	150.70	+20.0	140.66	128.11	+18.1	3.20	151.30	140.72	128.62	154.17	124.67	125.61
Denmark (36)	206.07	+20.9	192.33	202.99	+27.7	1.56	205.34	190.98	201.01	219.89	165.35	148.57
Finland (26)	124.34	-5.0	116.05	111.16	-2.8	2.54	124.97	116.24	111.31	159.16	123.12	123.90
France (126)	134.94	+17.3	125.95	133.36	+22.0	2.82	135.73	126.24	133.87	139.94	112.57	105.75
West Germany (97)	98.12	+11.6	91.58	94.58	+16.6	2.17	98.16	91.30	94.51	103.84	79.56	85.96
Hong Kong (48)	114.02	+2.0	106.42	114.32	+2.0	4.94	112.26	104.41	112.54	140.33	86.41	105.69
Ireland (17)	162.83	+23.6	151.98	159.61	+29.3	2.77	162.70	151.32	159.31	166.89	125.00	142.33
Italy (97)	89.22	+4.8	83.27	90.88	+9.5	2.51	88.71	82.51	90.37	96.73	74.97	84.35
Japan (455)	186.16	-2.8	173.75	167.51	+10.7	0.48	185.61	172.64	166.54	200.11	164.22	169.75
Malaysia (36)	199.93	+39.3	186.60	207.21	+38.4	2.58	198.66	184.77	205.81	209.22	143.35	139.44
Mexico (13)	323.63	+100.0	302.05	925.28	+128.6	0.56	308.11	286.57	880.23	326.61	153.32	156.48
Netherland (43)	128.20	*+14.0*	119.66	122.47	+19.2	4.33	129.57	120.52	123.66	131.72	110.63	109.31
New Zealand (19)	79.19	+17.1	73.91	71.42	+25.3	4.94	78.90	73.38	70.55	88.18	62.84	73.52
Norway (24)	177.98	+28.1	166.12	167.47	+35.3	1.55	177.68	165.26	166.47	198.39	139.92	119.03
Singapore (26)	159.54	+27.5	148.90	143.95	+28.4	2.06	159.56	148.41	143.76	170.62	124.57	121.67
South Africa (60)	145.14	+24.2	135.46	124.42	+26.8	4.58	145.82	135.63	124.76	160.24	115.35	111.56
Spain (43)	160.08	+7.9	149.41	143.59	+12.7	3.64	159.96	148.78	142.87	169.75	143.14	149.56
Sweden (35)	180.00	+24.5	168.00	171.67	+30.9	2.00	180.65	168.02	171.76	188.94	138.45	129.49
Switzerland (64)	88.93	+13.9	83.00	89.59	+23.2	2.11	89.44	83.19	90.03	94.16	67.81	83.83
United Kingdom (306)	141.71	+4.7	132.26	132.26	+19.3	4.59	142.64	132.67	132.67	158.41	133.28	137.21
USA (547)	141.06	+24.6	131.66	141.06	+24.6	3.28	141.02	131.16	141.02	146.29	112.13	115.56
Europe (996)	125.42	+9.3	117.06	119.47	+18.8	3.51	125.92	117.12	119.65	132.95	112.63	113.48
Nordic (121)	168.39	+20.6	157.16	156.04	+26.6	1.83	168.48	156.70	155.43	178.38	137.95	122.88
Pacific Basin (669)	181.99	-2.3	169.86	163.91	+10.7	0.72	181.41	168.73	162.91	194.72	160.44	168.34
Euro-Pacific (1665)	159.45	+1.1	148.82	146.11	+13.1	1.61	159.31	148.17	145.58	166.98	141.56	145.23
North America (669)	141.53	+24.3	132.10	140.25	+24.2	3.27	141.53	131.64	140.25	148.66	112.79	116.07
Europe Ex. UK (690)	114.44	+12.7	106.81	111.45	+18.1	2.77	114.69	106.67	111.51	118.51	96.30	98.59
Pacific Ex. Japan (214)	131.95	+5.9	123.16	119.05	+11.6	4.75	130.98	121.83	117.67	140.05	111.93	125.29
World Ex. US (1860)	159.11	+1.9	148.51	145.55	+13.4	1.69	158.99	147.88	145.05	166.35	141.49	144.22
World Ex. UK (2101)	152.59	+8.9	142.42	145.13	+16.6	1.99	152.40	141.74	144.71	158.04	136.98	132.70
World Ex. So. Af. (2347)	151.64	+8.5	141.53	144.05	+16.8	2.19	151.54	140.95	143.70	155.92	136.67	133.22
World Ex. Japan (1952)	135.29	+18.0	126.27	131.93	+21.7	3.43	135.43	125.96	131.93	140.43	114.51	115.54
The World Index (2407)	151.60	+8.6	141.49	143.92	+16.8	2.21	151.50	140.91	143.67	156.89	136.68	133.09

Base values: Dec 31, 1986 = 100; Finland: Dec 31, 1987 = 115.037 (US $ Index), 90.791 (Pound Sterling) and 94.94 (Local); Nordic: Dec 30, 1988 = 139.65 (US $ Index), 114.45 (Pound Sterling) and 123.22 (Local).

CONSTITUENT CHANGE: Name change: Suomen Sokeri to Cultor (Finland)(19/10/89).

EUROPEAN OPTIONS EXCHANGE

TOTAL VOLUME IN CONTRACTS: 125,732
A=Ask B=Bid C=Call P=Put

BASE LENDING RATES

	%		%		%
ABN Bank	15	City Merchants Bank	15	Mount Banking	15
Adam & Company	15	Clydesdale Bank	15	Nat Bk. of Kuwait	15
Allied Trust Bank	15	Comm.Bk.N.East	15	NatWestminster	15
Allied Irish Bank	15	Co-operative Bank	*15	Northern Bank Ltd	15
● Henry Ansbacher	15	Coutts & Co	15	Norwich Gen. Trust	15
Associates Cap Corp	14	Cyprus Popular Bk	15	PRIVATbanken Limited	15
Authority Bank	15	Dunbar Bank PLC	15	Provincial Bank PLC	16
● B & C Merchant Bank	15	Duncan Lawrie	15	R. Raphael & Sons	15
Bank of Baroda	15	Equatorial Bank plc	15	Roxburghe G'rantee	15½
Banco Bilbao Vizcaya	15	Exeter Trust Ltd	15½	Royal Bk of Scotland	15
Bank Hapoalim	15	Financial & Gen. Bank	15	Royal Trust Bank	15
Bank Credit & Comm	15	First National Bank Plc.	16	● Smith & Williamson Secs.	15
Bank of Cyprus	15	● Robert Fleming & Co.	15	Standard Chartered	15
Bank of Ireland	15	Robert Fraser & Ptnrs.	15½	TSB	15
Bank of India	15	Girobank	15	United Bk of Kuwait	15
Bank of Scotland	15	● Guinness Mahon	15	United Mizrahi Bank	15
Banque Belge Ltd	15	HFC Bank plc	15	Unity Trust Bank Plc	15
Barclays Bank	15	● Hambros Bank	15	Western Trust	15
Benchmark Bank PLC	15	Hampshire Trust Plc	15½	Westpac Bank Corp.	15
Brit Bk of Mid East	15	Heritable & Gen Inv Bnk.	15	Whiteaway Laidlaw	15
● Brown Shipley	15	● Hill Samuel	§15	Yorkshire Bank	15
Business Mtge Bank PLC	15½	C. Hoare & Co.	15		
CL Bank Nederland	15	Hongkong & Shangh	15		
● Charterhouse Bank	15	● Leopold Joseph & Sons	15		
Citibank NA	15	Lloyds Bank	15		
		McDonnell Douglas Bnk	15		
		Meghraj Bank Ltd	15		
		Midland Bank	15		

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JOTTER PAD

LONDON RECENT ISSUES

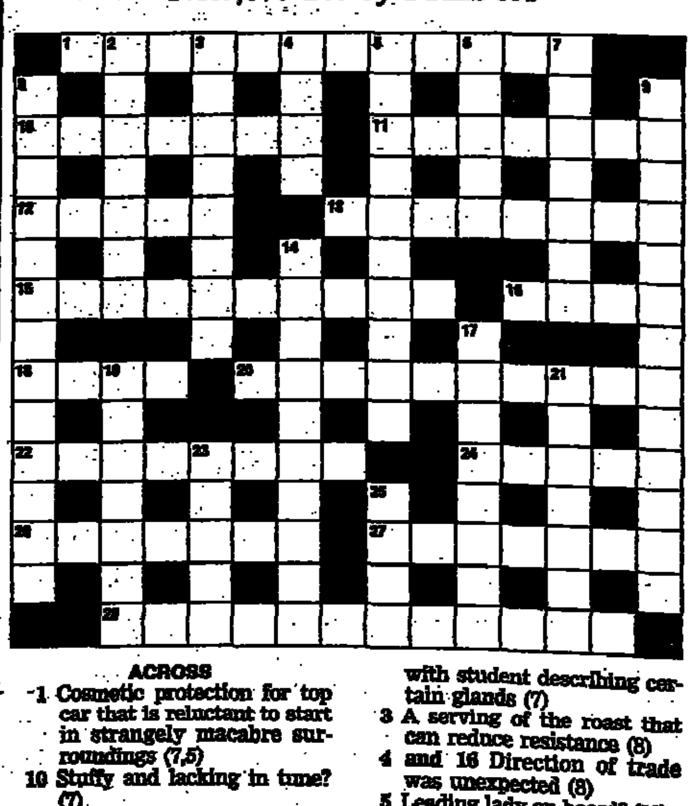
EQUITIES

FIXED INTEREST STOCKS

RIGHTS OFFERS

CROSSWORD

No.7,070 Set by FRESCA



ACROSS

1 Cosmetic protection for top car that is reluctant to start in strangely macabre surroundings (7,5)
10 Stuffy and lacking in tune? (7)
11 Apart – see below (7)
12 Extra good to Frenchman and American (5)
13 Model brought in to tidy up church for show (8)
15 Uproar: part of vessel (a convenience) accommodates sailor (10)
16 See 4
18 Lovebird? (4)
20 Doctor imbued with universal skill and staying power (10)
22 Perfect soul taking time off in Lincoln (8)
24 High notes going to the head in the tropics (5)
26 Beethoven's fourth – swamped by his third – may excite or offend (7)
27 Pitch sensitivity shown by duke with peculiar sound receiver (7)
28 Distractedly yell – frantic about holding note! (12)

DOWN

2 Competitive field in which head of dentistry appears with student describing certain glands (7)
3 A serving of the roast that can reduce resistance (8)
4 and 16 Direction of trade was unexpected (8)
5 Leading lady on board? (10)
6 Break out of cooler up town (5)
7 Said to be crazy about songstress? (7)
8 Nothing in starchy bread you deduce? What about these, then? (13)
9 Mr Field's entry implying a cordial relationship (8,5)
14 Investing a *little* money in the public transport business gives one something to lean on (10)
17 Tops up support of winner in Australia (8)
19 Abandoned accountants? Swell! (4,3)
21 Like an emperor avoiding a risk (7)
23 Learning about one's river (5)
25 The old-fashioned accompaniment to gin up in the Himalayas? (4)

The solution to last Saturday's prize puzzle will be published with names of winners on Saturday November 4.

WORLD STOCK MARKETS

AUSTRIA

1989 High	Low	October 20	Price Sch
3,410	2,100	Austrian Airlines	3,040
4,500	2,030	Creditanstalt	4,000
6,610	3,000	Goesser	5,850
32,000	13,450	Interunfall	27,900
20,400	8,390	Jungbunzlauer	18,050
625	355	Laenderbank	551
1,800	645	Perlmooser	1,670
2,850	880	Reininghaus	2,530
270	179	Semperit	189
192	76	Steyr-Daimler	139
1,260	644	Veitscher Mag	1,090
400	320	Verbund	323

BELGIUM/LUXEMBOURG

1989 High	Low	October 20	Price Frs.
7,000	3,850	Arbed	5,770
3,660	3,050	B.B.L.	3,690
15,800	13,500	Bank Intl. a Lux	15,550
14,600	12,728	Banque Gen. Du Lux	14,600
40,000	36,025	Banque Nat Belg	36,400
15,850	13,700	Bekaert B	14,025
8,400	6,200	Ciment CBR	7,800
6,670	5,164	Cobepa	6,250
6,440	5,270	Do. AFV 1	6,000
510	224	Cockerill	229
19,100	10,008	Colruyt	17,975
6,570	4,770	Delhaize	5,990
5,000	4,255	EBES	4,495
4,900	4,255	Do. AFV 1	4,450
880	570	Fabrique Nat	616
1,510	1,272	GIB Group	1,416
1,530	1,290	Do. AFV	1,360
5,000	3,810	GBL(Brux)L	4,535
4,900	3,825	Do. AFV 1	4,530
4,900	3,820	Do. AFV 2	4,590
1,178	590	Gechem	1,050
1,090	560	Do. AFV	950
6,760	5,500	Generale Bank	5,900
6,740	5,550	Do. AFV 1	6,100
7,100	6,010	Do. AFV 2	6,450

FRANCE (continued)

1989 High	Low	October 20	Price Frs.
3,182	2,285	Arjomari-Prioux	2,913
1,129	829	Auxiliare d'Ent	975
865	713	BIC	798
773	617	BSN	694
705	420	Bancaire Cie	600
459	293	BRP (Cert.Inv.)	374
711	553	Beghin-Say	686
515	385	Do. Certs	465
3,364	2,785	Bongrain	3,180
780	533	Bouygues	701
260	212	CMB Packaging	222
3,671	2,250	Carrefour	3,999
239	185	Casino	210
860	585	Cetelem	598
1,455	1,030	Chargeurs	1,089
1,825	1,200	Ciments Fr.	1,677
700	493	Club Mediterranee	606
399	333	Cofimeg	379
419	337	CogifI	375
503	368	CGE	471.1
405	302	Coparex	350
1,186	701	Cred Foncier Fr	1,186xc
1,258	940	Credit National	1,135
4,025	2,952	Damart	3,810
5,180	2,720	Docks de France	4,685
634	447	Dollfus-Mieg	541
1,149	783	Dumez S.A.	955
2,287	1,540	Eaux (Cie Gen)	2,088
675	420	Ecco	526
1,199	856	Electrofla're	1,185
549	383	Elf-Aquitaine	508
445	328	Do. Certs	411
1,511	1,034	Epeda-Bertrand	1,260
3,875	2,900	Essilor	2,950
3,099	2,358	Eternit (Fin.)	2,495
2,875	1,549	Eurafrance	2,380
1,940	1,270	Eurocom	1,888
4,735	2,340	Euromarche	4,110
1,945	1,205	Exor	1,860
228	198	Finextel	216
772	455	Fonciere Lyons	751

CANADA

TORONTO
Closing prices October 20

INDICES

NEW YORK

DOW JONES	Oct 20	Oct 19	Oct 18	Oct 17	1989 HIGH	1989 LOW	Since compilation HIGH	Since compilation LOW
♦Industrials	2689.14	2683.20	2643.65	2638.73	2791.41 (9/10)	2144.64 (3/1)	2791.41 (9/10/89)	41.22 (2/7/32)
Home Bonds	92.76	92.68	92.70	92.74	94.15 (2/8)	87.35 (23/3)	—	—
Transport	1230.80	1263.51	1247.87	1254.27	1532.01 (5/9)	959.95 (3/1)	1532.01 (5/9/89)	12.32 (8/7/32)
Utilities	215.48	215.42	213.97	214.54	221.64 (8/8)	181.84 (24/2)	227.83 (22/1/87)	10.50 (8/4/32)

♦Day's High 2703.07 (2707.58) Low 2660.25 (2650.61)

STANDARD AND POOR'S	Oct 20	Oct 19	Oct 18	Oct 17	1989 HIGH	1989 LOW	Since compilation HIGH	Since compilation LOW
Composite ‡	347.16	347.13	341.76	341.16	359.80 (9/10)	275.31 (3/1)	359.80 (9/10/89)	4.40 (1/6/32)
Industrials	396.30	396.57	390.22	389.34	410.49 (9/10)	318.66 (3/1)	410.49 (9/10/89)	3.62 (21/6/32)
Financial	33.68	33.55	33.00	32.90	35.24 (9/10)	24.30 (3/1)	35.24 (9/10/89)	8.64 (1/10/74)
NYSE Composite	192.12	192.17	189.32	188.89	199.34 (9/10)	154.98 (3/1)	199.34 (9/10/89)	4.46 (25/4/42)
Amex Mkt. Value	382.57	382.81	378.07	375.16	397.03 (10/10)	305.24 (3/1)	397.03 (10/10/89)	29.31 (9/12/72)
NASDAQ Composite	470.67	470.80	463.28	459.93	485.73 (9/10)	378.56 (3/1)	485.73 (9/10/89)	54.87 (31/10/72)

	Oct 13	Oct 6	Sep 29	year ago (approx.)
Dow Industrial Div. Yield	4.01	3.62	3.74	3.63
	Oct 18	Oct 11	Oct 4	year ago (approx.)
S & P Industrial div. yield	2.95	2.82	2.82	3.19
S & P Indl. P/E ratio	14.28	14.91	14.90	13.03

NEW YORK ACTIVE STOCKS

Friday	Stocks traded	Closing price	Change on day
Philip Morris	2,527,000	44⅛	- ⅛
AT&T	2,443,000	43⅝	+ ¼
Chevron	2,401,000	66⅞	+ ⅝
UAL	2,233,100	168½	-21⅝
Bristol Myers	2,148,400	52	- ⅜
Global Mar	2,073,600	2⅞	+ ⅛
IBM	1,931,500	104¼	+ ⅛
Dun & Bradst	1,873,400	51⅛	- ⅜
Citicorp	1,742,800	31⅞	- ⅛
General Elect	1,721,100	56⅛	----

TRADING ACTIVITY

† Volume Millions	Oct 20	Oct 19	Oct 18
New York	164.803	198.120	166.900
Amex	10.638	14.584	12.355
NASDAQ	158.158	173.461	147.649
Issues Traded	1,948	1,950	1,934
Rises	662	1,222	811
Falls	809	342	662
Unchanged	477	386	461
New Highs	32	36	8
New Lows	28	18	33

CANADA

TORONTO	Oct 20	Oct 19	Oct 18	Oct 17	1989 HIGH	1989 LOW
Metals & Minerals	3542.70	3587.98	3551.33	3527.1	3919.2 (1/9)	3207.5 (3/1)
Composite	3954.79	3969.66	3929.51	3904.2	4037.8 (6/10)	3350.5 (6/1)
MONTREAL Portfolio	2025.09	2034.55	2009.55	1997.39	2069.68(10/10)	1677.48 (3/1)

Base values of all indices are 100 except NYSE All Common—50; Standard and Poor's—10; and Toronto Composite and Metals—1000. Toronto indices based 1975 and Montreal Portfolio 4/1/83. † Excluding bonds.‡ Industrial, plus Utilities, Financial and Transportation. (c) Closed. (u) Unavailable.

	Oct. 20	Oct. 19	Oct. 18	Oct. 17	1989 HIGH	1989 LOW
AUSTRALIA						
All Ordinaries (1/1/80)	1673.8	1655.9	1629.2	1662.6	1781.8 (29/8)	1412.9 (7/4)
All Mining (1/1/80)	805.6	798.4	788.5	801.5	875.1 (29/8)	652.6 (7/4)
AUSTRIA						
Credit Aktien (30/12/84)	471.62	472.92	475.06	482.45	515.09 (11/10)	219.5 (2/1)
BELGIUM						
Brussels SE (1/1/80)	6555.74	6498.17	6368.67	(u)	6805.28 (26/9)	5519.30 (4/1)
DENMARK						
Copenhagen SE (3/1/83)	342.08	334.61	328.83	329.12	356.65 (12/7)	275.49 (27/2)
FINLAND						
Unitas General (1975)	673.2	673.6	670.8	677.7	815.8 (18/4)	666.0 (16/10)
FRANCE						
CAC General (31/12/82)	533.8	523.9	519.9	526.5	561.6 (11/10)	437.9 (4/1)
Ind. Tendance(30/12/88)	120.5	120.5	117.5	118.6	128.1 (10/10)	97.5 (27/2)
GERMANY						
FAZ Aktien (31/12/58)	645.3	640.44	632.26	623.02	690.91 (10/10)	535.78 (27/2)
Commerzbank (1/12/53)	1900.8	1903.9	1878.7	1850.8	2056.8 (10/10)	1595.7 (27/2)
DAX (30/12/87)	1524.21	1526.60	1491.14	1475.44	1657.61 (8/9)	1271.70 (23/2)
HONG KONG						
Hang Seng Bank (31/7/64)	2703.95	2663.37	2628.55	2695.90	3309.64 (15/5)	2093.61 (5/6)
IRELAND						
ISEQ Overall (4/1/88)	1748.95	1744.78	1730.25	1695.06	1848.93 (10/8)	1360.64 (10/1)
ITALY						
Banca Com. Ital. (1972)	663.47	659.36	656.34	668.33	734.84 (31/8)	577.49 (28/2)
JAPAN						
Nikkei (16/5/49)	35486.38	35374.22	35107.56	34996.08	35689.98 (28/9)	30183.79 (5/1)
Tokyo SE (Topix) (4/1/68)	2679.72	2665.66	2642.88	2639.66	2703.58 (2/10)	2366.91 (6/1)
2nd Section (4/1/68)	3717.46	3705.58	3689.86	3693.39	3804.11 (9/10)	2774.38 (27/3)
NETHERLANDS						
CBS TU.Rtn.Gen.(End 1983)	258.3	260.5	256.2	252.2	272.7 (21/9)	208.3 (3/1)
CBS All Shr (End 1983)	198.6	200.3	197.0	193.9	210.5 (8/9)	166.7 (1/3)
NORWAY						
Oslo SE (2/1/83)	651.75	648.94	635.37	631.01	695.50 (28/9)	467.17 (2/1)
PHILIPPINES						
Manila Comp (2/1/85)	1259.94	1214.18	1197.26	1222.83	1288.62 (13/10)	804.62 (6/2)
SINGAPORE						
Straits Times Ind. (30/12/66)	1345.60	1337.12	1310.22	1341.83	1431.85 (12/10)	1030.69 (4/1)
SOUTH AFRICA						
JSE Gold (28/9/78)	1518.0‡	1542.0	1504.0	1491.0	1710.0 (27/9)	1291.0 (15/2)
JSE Industrial (28/9/78)	2511.0‡	2505.0	2467.0	2450.0	2838.0 (25/8)	1961.0 (3/1)
SOUTH KOREA**						
Korea Comp Ex. (4/1/80)	903.29	909.54	917.19	927.69	1007.80 (3/4)	846.30 (1/7)
SPAIN						
Madrid SE (30/12/85)	314.83	310.35	308.73	311.12	328.93 (13/9)	268.61 (1/3)
SWEDEN						
Jacobson & P. (31/12/56)	4359.89	4347.31	4272.4	4258.75	4660.3 (16/8)	3333.9 (3/1)
SWITZERLAND						
Swiss Bank Ind. (31/12/58)	784.5	788.5	766.3	761.6	829.1 (6/9)	613.1 (3/1)
TAIWAN**						
Weighted Price (30/6/66)	10161.99	10092.45	9968.28	10100.52	10773.11 (25/9)	4873.01 (5/1)
THAILAND						
Bangkok SET (30/4/75)	682.44	668.65	673.18	686.79	724.93 (13/9)	386.73 (2/1)
WORLD						
M.S. Capital Intl. (1/1/70)	(u)	535.1	528.4	526.6	551.2 (3/8)	487.6 (13/6)

**Saturday Oct.14: Taiwan Weighted Price: 10019.68. Korea Comp Ex. 934.41.
‡ Subject to official recalculation.
Base values of all indices are 100 except: Brussels SE, ISEQ Overall and DAX – 1,000, JSE Gold – 255.7, JSE Industrials – 264.3 and Australia All Ordinary and Mining – 500; (c) Closed. (u) Unavailable.

TOKYO - Most Active Stocks
Friday October 20 1989

	Stocks Traded	Closing Prices	Change on day		Stocks Traded	Closing Prices	Change on day
Tokyu	58.8m	2,370	+100	Nippon Express	15.3m	1,560	+50
Tokyu Land	32.3m	1,700	+30	Nagoya Rail	15.2m	1,470	+60
Odakyu Rail	27.9m	1,950	+30	Mitsubishi Rayon	14.4m	876	+15
Sekisui House	21.0m	2,570	+80	Mitsui Rl Est	14.2m	2,880	-10
Tobu Rail	16.8m	1,690	+40	Cosmo Oil	12.8m	1,150	+50

4pm prices October 20

NEW YORK STOCK EXCHANGE COMPOSITE PRICES

12 Month High	Low	Stock	Div.	Yld.	P/E	Sls 100s	High	Low	Close	Prev. Close Ch'ge
[illegible]										

Continued on Page 45

NYSE COMPOSITE PRICES

12 Month High	Low	Stock	Div.	Yld.	P/E	Sls 100s	High	Low	Close Quote	Ch'ge Prev. Close

Continued from previous page

Sales figures are unofficial. Yearly highs and lows reflect the previous 52 weeks plus the current week, but not the latest trading day. Where a split or stock dividend amounting to 25 percent or more has been paid, the year's high-only range and dividend are shown for the new stock only. Unless otherwise noted, rates of dividend are annual disbursements based on the latest declaration.

a-dividend also xtra(s). b-annual rate of dividend plus stock dividend. c-liquidating dividend. cld-called. d-new yearly low. e-dividend declared or paid in preceding 12 months. g-dividend in Canadian funds, subject to 15% non-residence tax. i-dividend declared after split-up or stock dividend. j-dividend paid this year, omitted, deferred, or no action taken at latest dividend meeting. k-dividend declared or paid this year, an accumulative issue with dividends in arrears. n-new issue in the past 52 weeks. The high-low range begins with the start of trading. nd-next day delivery. P/E price-earnings ratio. r-dividend declared or paid in preceding 12 months, plus stock dividend. s-stock split. Dividends begin with date of split. sls-sales. t-dividend paid in stock in preceding 12 months, estimated cash value on ex-dividend or ex-distribution date. u-new yearly high. v-trading halted. vi-in bankruptcy or receivership or being reorganised under the Bankruptcy Act, or securities assumed by such companies. wd-distributed. wi-when issued. ww-with warrants. x-ex-dividend or ex-rights. xdis-ex-distribution. xw-without warrants. y-ex-dividend and sales in full. yld-yield. z-sales in full.

AMEX COMPOSITE PRICES

4pm prices October 20

Stock	Div.	P/E	Sls 100s	High	Low	Close	Chng

NASDAQ NATIONAL MARKET

4pm prices October 20

Stock	Div.	Sales 100s	High	Low	Last	Chng

The Business Column

When IBM looks a little like BAT

"WE DO NOT see anything in the fundamentals of our business that would cause us to change our strategy of investing in profitable growth," said Mr John Akers, chairman of IBM, when announcing a 30 per cent fall in the company's quarterly profits last week.

Such "jam tomorrow" statements could easily be dismissed as the sort of thing top managers say to reassure shareholders when their companies are going through a rough patch. Just keep the faith, trust in us and we'll pull through in the long haul.

In IBM's case, admittedly, a rather large dose of faith may be needed. Though the company's earnings-per-share have gradually recovered in each of the last three full years, they have yet to regain their 1985 level, while its share price has under-performed the US stock market by 60 per cent since 1983.

However, Mr Akers' statement deserves closer examination, for it contains an implied assumption which is increasingly questioned in the computer industry: that while the ingredients of IBM's business may be changing, the master recipe remains as sound today as it was in the past.

Core business

A less sympathetic analysis might conclude that soufflés do not rise twice. Indeed, the once invincible IBM today looks open to some of the more telling criticisms levelled at Britain's BAT by Sir James Goldsmith.

Each company is built around a business (mainframe computers and tobacco) which is immensely profitable and generates huge amounts of cash. But both businesses are also mature, with unexciting growth prospects. In IBM's case, the problem is compounded by relentless competition from Japan and by technological change, which has enabled smaller, cheaper computers to usurp many of the mainframe's traditional functions.

IBM has sought to diversify within the electronics industry but, like BAT, it has had limited success in finding new ventures offering returns comparable to those on its core business. Its moves into telecommunications proved an expensive flop, and it is a weak contender in many fast-growing niche computer markets, such as laptops and workstations.

In these markets, the growing "user-friendliness" of products has eroded one of IBM's biggest advantages – its ability to charge high prices in return for holding the hands of customers bewildered by the sheer complexity of their computers. Furthermore, even IBM's legendary control over industry standards is now being challenged by smaller microelectronics and software firms, which have increasingly seized the initiative in product innovation.

Better returns

IBM's market capitalisation of almost $60bn probably puts it beyond reach of a hostile bid. But the company faces a challenge not unlike that confronting BAT. It needs to satisfy its shareholders that, by managing an increasingly diverse portfolio of businesses on their behalf, it can obtain higher returns than if they invested the money for themselves.

It is two decades since the Johnson administration launched an anti-trust action seeking to break up IBM on the grounds that it was excessively dominant. Six years ago, the Reagan administration dropped the case, partly because it believed the US needed giant companies to slug it out on world markets against the Japanese.

Today, both lines of argument look flawed. IBM's sheer weight has not stifled competition in the US computer industry, nor has it turned back the technological challenge from Japan. If anything, the company's size has proven one of its biggest handicaps, saddling it with high costs and impeding its speed of market response.

This raises interesting questions for debate by trust-busters. But for businessmen – and particularly those in Europe who are urging the creation of "European champion" companies in advance of 1992 – the lessons seem all too clear.

Guy de Jonquières

MONDAY INTERVIEW

Staying privately Dutch

Paul Fentener van Vlissingen, the chief executive of SHV, talks to **Laura Raun**

As the eighth generation of a wealthy Dutch merchant dynasty, Mr Paul Fentener van Vlissingen and his family are pondering the difficult question that most such dynasties eventually face.

Should the family business – in this case SHV, a peculiar amalgam of energy activities and consumer goods – be floated publicly if none of the heirs wants to run it? Mr Fentener van Vlissingen, president and chief executive officer of SHV, believes that – wrenching as that might be – the company ought to go public if an outsider were made chairman.

"I simply don't believe a privately held company without a family manager works," insists Mr van Vlissingen, who is 48. "Shareholders will always want more money."

SHV is one of the largest private companies in Europe, with sales of Fl 12.2bn (£3.7bn) in 1988 and operations in nearly 20 countries, including Albania, China and the Soviet Union. The Fentener van Vlissingens are among the richest families in Europe, with a fortune estimated at Fl 5bn, and one of the most flamboyant patriarchies in The Netherlands.

Combining an entrepreneurial flair and artistic inclination, they have always stood out in the relatively flat landscape of Dutch industrialists. Their historically close links with Germany have aroused suspicion and jealousy.

The family's trading empire began in 1790 with Spice Island textiles and German coal. In 1896, the Fentener van Vlissingens linked up with six other coal traders in Utrecht, Rotterdam and Amsterdam to form Steenkolen Handelsvereniging (SHV), a cartel set up to import German coal and drive out English competitors.

One of the cartel members was the van Beuningen family, which was linked to the Fentener van Vlissingens by marriage, and the two soon got control of SHV.

By the 1920s, SHV was biggest employer in The Netherlands, monopolising inland coal shipping with barges carrying grandiose names from Wagner operas, like Tristan and Isolde. It built up large operations in Rotterdam.

Around this time, Frits Fentener van Vlissingen, Paul's grandfather, co-founded Akzo, Hoogovens and Fokker. This trio of Dutch blue chips also has had close links to Germany.

After the Second World War, Jan Fentener van Vlissingen, Paul's father, took over SHV while the van Beuningens, who shared his passion for art, departed. They took with them SHV's holding in Royal Dutch/Shell – SHV was the biggest shareholder at the time – and co-founded Robeco and the Boymans-van Beuningen Museum in Rotterdam.

Mindful of long-held suspicions of family sympathies with Nazi Germany, Paul Fentener van Vlissingen goes out of his way to mention the war during interviews.

"My father was the head of the resistance in Utrecht and was taken by the Gestapo," he explains. "It was a miracle my father got out of the war after they smashed the (Rotterdam) harbour, the coal works, train cars and ships." His father had tremendous resilience, he says, and got the company on its feet again.

Compared with traditional Dutch management style, which stresses organisation and planning, Mr Fentener van Vlissingen is a radical renegade. He believes in "creative chaos," spontaneity and short communication lines.

'My grandfather was a co-founder of KLM when no one thought airlines would be commercial. We try to have the same spirit at SHV. We seek the unusual, something that has not been done before'

"I'm the product of eight generations of entrepreneurs," he says. "I was brought up, along with my two brothers, with original thinking.

"My grandfather was a co-founder of KLM when no one thought airlines would be commercial. We try to have the same spirit in SHV. We seek the unusual, something that has not been done before."

Those who work for Mr Fentener van Vlissingen would no doubt endorse that he is "unusual". He once brought SHV managers from around the world to corporate headquarters in Utrecht and had them write poems about SHV. They had to use a given animal to describe the company. "Some deep insights were brought out in a hilarious way," he says.

To celebrate the 50th birthday of a manager, the unorthodox executive threw a party where everyone wore live boa constrictors around their necks.

Mr Fentener van Vlissingen is tall, lean and aristocratically handsome. Always impeccably attired, he sports a scarab ring on his little finger.

He is also a poet, short-story writer, conservationist and artist. He wanted to study philosophy but ended up doing economics at Groningen University, after studying for a while at Oxford.

He has exhibited at the Edinburgh Arts Festival and in conjunction with Caroline Tisdall, an English journalist, has produced a glossy book of photographs and poems celebrating Witches' Point in Scotland's Wester Ross. Mr Fentener van Vlissingen owns 70,000 acres in Scotland – he particularly cherishes it because of his mother's Scottish ancestry.

The family has created a labyrinth of foundations and holdings to maximise control of assets and minimise taxes which have been quite punitive in the past. The family's 65 per cent of SHV is held by a foundation. Its directors are Paul, his brothers John and Frits, two other family members and two outsiders – always prominent Dutchmen.

The three brothers and their seven children own about 50 per cent of SHV's shares. Another two dozen or so family members own the other 15 per cent.

The remaining 35 per cent is held by several hundred descendants of the founding families. Shares can be sold only to other heirs.

'Once I had to fire a man . . . and he committed suicide.'

SHV wants to remain privately held so it can pursue strategic policy without undue pressure from outside shareholders. "We have so much more time as a private company. We can stalk a company for years."

Energy activities account for about 35 per cent of SHV's revenues, and last year the company became a European leader in liquefied petroleum gas (LPG) when it gained control of Calor, the biggest LPG company in the UK, and Primagaz, similarly important in France.

SHV acquired 42 per cent of Calor by selling its oil and gas interests in the Brae fields of the North Sea and gained control of Primagaz by promising to consolidate its continental European LPG activities into the French company.

This is an area intriguing the London stock market, as analysts try to fathom SHV's long-term intentions towards Calor, Burmah, owners of Castrol, and Premier Consolidated, a small oil company. SHV has shares in all three companies and has recently increased its stake in Burmah.

"We try to do deals in SHV which may sound complex but that is only because they are unusual," says Mr Van Vlissingen. He denies wanting to own 100 per cent of Calor.

Net income jumped 25 per cent to Fl 221m in 1988, due mostly to acquisitions. However, growth was a more modest 7 to 8 per cent in each of the two preceding years. About 65 per cent of SHV's sales is derived from the Makro and Metro self-service wholesale stores and Otto Reichelt supermarkets in Berlin.

Roughly 85 per cent of SHV's turnover comes from abroad.

While SHV has the borrowing capacity to mount a £1bn acquisition and has huge secret reserves – billions of guilders says Mr Fentener van Vlissingen – the family is still interested in searching out fresh money to finance its ambitious plans for expansion. This explains SHV's current interest in tapping other funding sources.

Aside from a bourse listing to raise money, which is under study, a private placement of non-voting preferred shares also is possible. Non-voting shares are forbidden in The Netherlands but are allowed in West Germany, where Nixdorf, Porsche and Bertelsmann have issued them.

Now equity financing is possible through Calor's listing on London's International Stock Exchange and Primagaz's listing on the Paris Bourse.

SHV has secret stakes in other companies in the UK, West Germany, Belgium and the US, according to Mr Fentener van Vlissingen. Recently it infuriated Ahold, the Dutch retailer, by selling a secretly acquired 12 per cent stake to Asko of West Germany.

The company is decentralised. Only 49 employees work in corporate headquarters out of 27,300 worldwide.

Business acumen seems to run in the family blood. John Fentener van Vlissingen, who is 50, manages $7bn (£4.4bn) of funds through his NORO investment company, which channels money into venture capital and US real estate.

Frits Fentener van Vlissingen, 56, is managing director of Flint Holding, believed to be the holding company for the family fortune.

The three brothers together hold at least 16 supervisory board seats at some of the Netherlands' most powerful companies. "I consider myself extremely lucky because I have such supportive brothers. They could ruin my life if they were breathing down my neck all the time."

Mr Paul Fentener van Vlissingen sees himself more in the mould of a Lord Hanson than a Sir James Goldsmith.

"Once I had to fire a man very early on in my career, and he committed suicide. It was a lesson for life. When you do things, even if the business rationale is there, you have always to realise that behind every business upheaval there is a human face." When he took over six years ago, he cut head office staff from over 400 to under 50; but, he says, he talked to each employee.

"You can't make money your first object in life," he insists. "There is a social responsibility, especially when you are known to be a wealthy family. We feel part of the world society, as an extremely wealthy family."

Judicial inquiry must be thorough

JUSTINIAN

There have been far too many miscarriages of justice – uncovered, let alone undiscovered – for anyone to be deluded into thinking that it is only the machinery for appellate review of criminal convictions or the proper evidential value to be attached to uncorroborated confessions that needs careful examination. It is vital that Sir John May in his judicial inquiry should examine the fundamental weakness of the English criminal justice system. Anything less than a thorough review of the whole criminal process will fall short of the challenge presented to a civilised society by so sorry a tale as that revealed by the case of the Guildford Four.

Too often in the past there has been a consistently piecemeal approach to the problems thrown up by the system of criminal justice. The flaws in the police methods of identification of accused persons was the subject in the early 1970s both of a departmental committee under Lord Devlin and a valuable decision from the Court of Appeal. Confessions have always been a worrying aspect of criminal investigation. The Police and Criminal Evidence Act 1984 deals generally with the detention, treatment and questioning of people by police officers. It does not extend to terrorist crimes and other of the most serious criminal offences.

Had the provisions in the Act applied to the Guildford Four in 1975, the police officers might have been less inclined to concoct confessions. The difficulties inherent in false confessions was highlighted in the late 1970s by the Confait case when two young men and a boy were wrongly convicted of the murder of a transvestite homosexual in a house in Lewisham. The disclosure of that miscarriage of justice led to the setting up of the Royal Commission on Criminal Procedure which reported in 1981 and led to the 1984 Act. That Act reflected workable guidelines for the police in their investigation of serious crime while at the same time strengthening the safeguards for the individual.

But that study and ensuing legislation were restricted to a revision of the established system of criminal procedure. It did not involve any questioning of the theoretical underpinning of the criminal justice system and it stopped short of any examination of the trial process. The role of the legal profession, the function of the judge and jury within the courtroom setting was strictly out of bounds to Royal commissioners. And when the Government turned more recently to the Roskill Committee on Serious Frauds, the Committee's recommendation to substitute a professional tribunal for certain complicated cases of fraud the Government weakened in the face of a hostile reception from a large body of practising lawyers which did not favour any tampering with jury trial. Trial by jury itself, with the consequences of an unarticulated verdict which severely hampers a proper appellate system ought to be examined by Sir John May.

There have been other segments of the criminal process that have remained worryingly untouched by patchwork reforms. The Confait case itself dramatically exposed the frailties of much forensic evidence. The medical experts who gave evidence for the prosecution wrongly estimated the time of the victim's death. This factor led to the reopening of the case and the ultimate reversal of the wrongful convictions.

If all these defects and applied remedies are viewed selectively, the overall picture becomes clear. The investigation of crime by the police and the process of criminal prosecution do not come under any kind of judicial scrutiny until trial, and then the court is to try the accused and not review ex post facto the conduct of the police or the prosecution.

The analysis of evidence accumulated from the moment of the crime is postponed until the day of trial. This is the major defect in the English system. Quite apart from this deferment of determining who is responsible for the criminal event under scrutiny, the accumulators of the evidence to be placed before the court of trial are left largely to their own devices. Police officers collect the material which they think support the case against those arrested and charged, and may and often do discard or ignore material that points in another direction. In this process the defence is hopelessly handicapped. If there is the opportunity to the defence to conduct its own inquiries, it occurs only after the accused has been arrested and charged. There is, for example, no forensic pathologist at the scene of a murder to protect the interests of a potential accused. He is at the mercy of the doctors who conducted any post-mortem and who give evidence on behalf of the prosecution.

European legal systems logically require judicial control over both the investigation of crime and the gradual compilation of a dossier as and when the evidence was acquired and analysed. The Procurator Fiscal system in Scotland exhibits the like approach to criminal investigation. To advocate judicial control over the criminal process from the moment the crime is uncovered is not to throw over the adversarial nature of the English criminal trial in favour of the inquisitorial system adopted by western European countries. The Crown would still be left to establish at trial its case beyond reasonable doubt; the defence would be entitled to put the Crown to proof. The difference would be that the umpire would be in place at the start of play and not only when one side has completed its first innings.